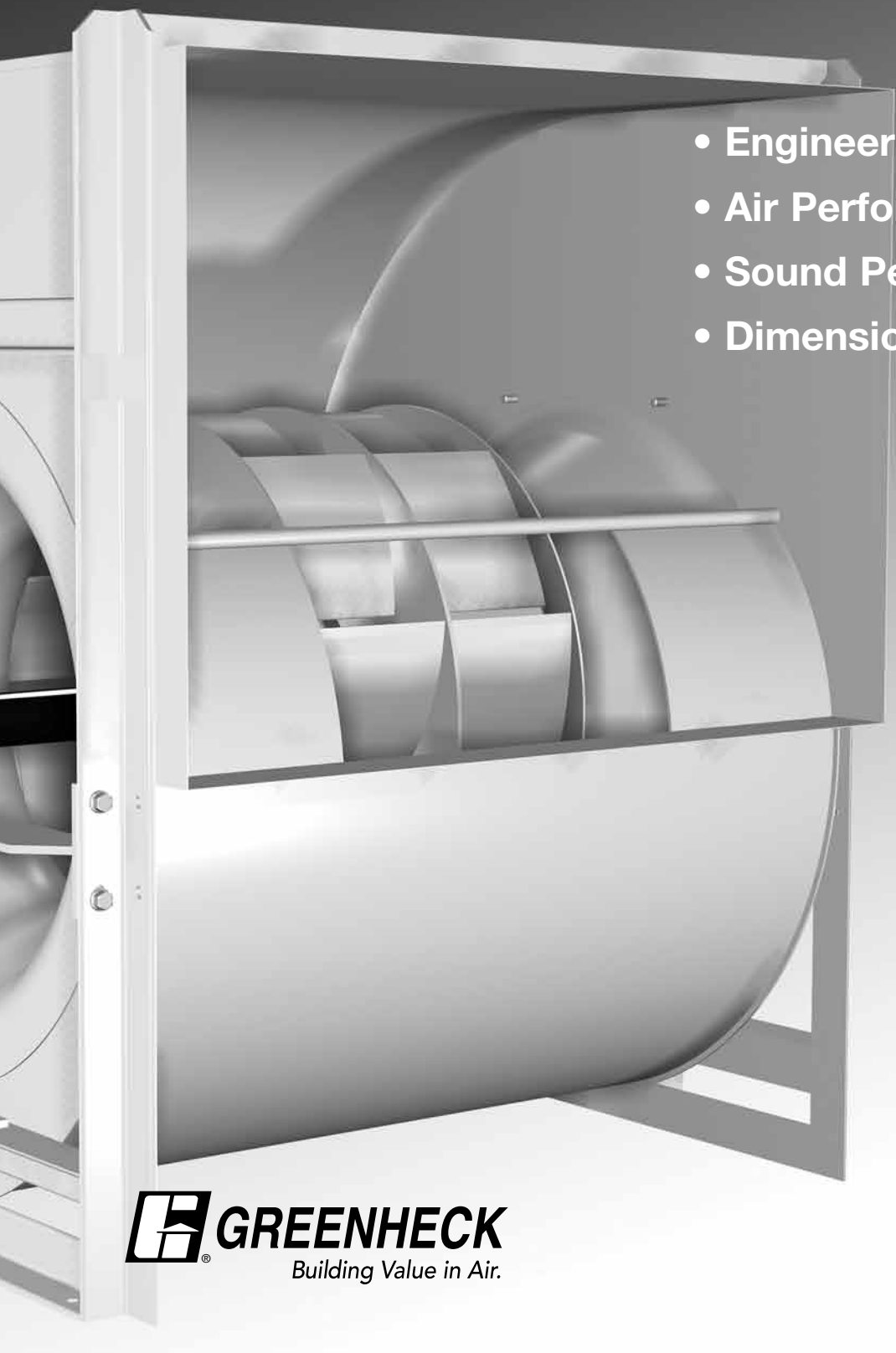
Double-Width Centrifugal Fan *Performance Supplement*



- Engineering Information
- Air Performance
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- Dimensional Data

GREENHECK®
Building Value in Air.

January
2012

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Greenheck Fan Corporation certifies that the backward inclined and airfoil centrifugal 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 Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

Our Warranty

Greenheck warrants this equipment to be free from defects in material and workmanship for a period of one year from the shipment date. Any units or parts which prove defective during the warranty period will be replaced at our option when returned to our factory, transportation prepaid. Motors are warranted by the motor manufacturer for a period of one year. Should motors furnished by Greenheck prove defective during this period, they should be returned to the nearest authorized motor service station. Greenheck will not be responsible for any removal or installation costs.

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

Computer Aided Product Selection Program — CAPS

All Greenheck products are supported by the industry's best product literature, electronic media, and Computer Aided Product Selection program, CAPS. Online, you can also find electronic copies of our product literature as well as storage, installation and maintenance information in our Installation and Operation Manuals.

And, of course, you can always count on the personal service and expertise of our national and international representative organization. To locate your nearest Greenheck representative call 715-359-6171 or visit our Web site at www.greenheck.com

To-Scale Drawings and Fan Specifications

To-scale CAD drawings along with detailed centrifugal specifications can be found online at greenheck.com or within our Computer Aided Product Selection program (CAPS).

Motor Selection

Greenheck centrifugal fans can be supplied with any motor that is commercially available, and appropriate for the fan size and performance required. The tables show motor frame sizes corresponding to those motors readily available.

Notes:
1. Fractional horsepower motor frame sizes shown may change due to variations in voltage, special features and manufacturer.
2. Motors shown are ball bearing, continuous duty. Two speed motors are two winding, 1/3 reduction in RPM.
3. Single-phase motors are capacitor start.

1800 RPM Motors

HP	Single Speed									2 Speed 2 Winding	
	Open			TE		Explosion-Resistant		High Efficiency		Open	
								Open	TE		
	115V 1PH	230V 1PH	3PH	115V 230V 1PH	3PH	115V 230V 1PH	3PH	230V 460V 3PH	230V 460V 3PH	115V 1PH	3PH
¼	48	48	48	48	48	48	48			48	
⅓	48	48	56	56	56	56	56			56	
½	56	56	56	56	56	56	56			56	
¾	56	56	56	56	56	56	56			56	
1	56	56	143T	56	143T		56	143T	143T		56
1½	145T	145T	145T	145T	145T		145T	145T	145T		56
2	182T	182T	145T	182T	145T		145T	145T	145T		182T
3			182T		182T		182T	182T	182T		184T
5			184T		184T		184T	184T	184T		215T
7½			213T		213T		213T	213T	213T		254T
10			215T		215T		215T	215T	215T		256T
15			254T		254T		254T	254T	254T		256T
20			256T		256T		256T	256T	256T		284T
25			284T		284T		284T	284T	284T		286T
30			286T		286T		286T	286T	286T		324T
40			324T		324T		324T	324T	324T		326T
50			326T		326T		326T	326T	326T		365T
60			364T		364T		364T	364T	364T		
75			365T		365T		365T	365T	365T		
100			405T		405T		405T	405T	405T		
125			405T		444T		444T	405T	444T		
150			444T		445T		445T	444T	445T		

3600 RPM Motors

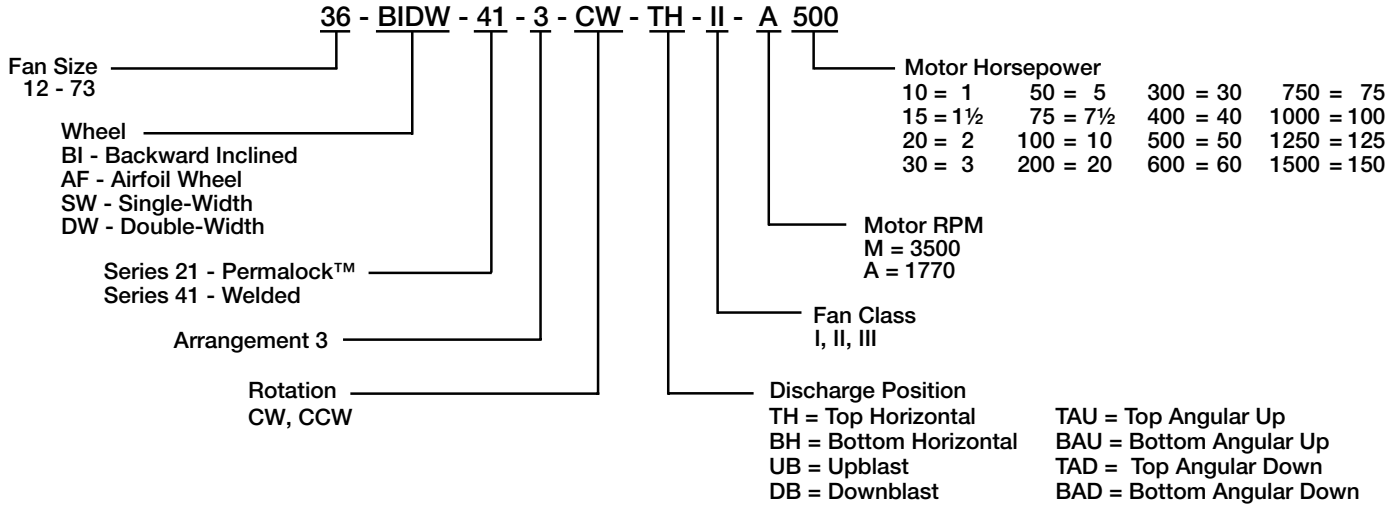
3600 RPM motors are recommended for fan speed over 2700 RPM

HP	Single Speed								
	Open			TE		Explosion-Resistant		High Efficiency	
								Open	TE
	115V 1PH	230V 1PH	3PH	115V 230V 1PH	3PH	115V 230V 1PH	3PH	230V 460V 3PH	230V 460V 3PH
⅓	48	48			56				
½	48	48	56	56	56				
¾	56	56	56	56	56				
1	56	56	56	56	56				
1½	143T	143T	143T	143T	143T		143T	143T	143T
2	145T	145T	145T	145T	145T		145T	145T	145T
3	182T	182T	145T	182T	182T		182T	145T	182T
5		184T	182T	182T	184T		184T	182T	184T
7½		213T	184T	184T	213T		213T	184T	213T
10		215T	213T	213T	215T		215T	213T	215T
15			215T		254T		254T	215T	254T
20			254T		256T		256T	254T	256T
25			256T		284TS		284TS	256T	284TS
30			284TS		286TS		286TS	284TS	286TS
40			286TS		324TS		324TS	286TS	324TS
50			324TS		326TS		326TS	324TS	326TS

Motor Number Code

The model number code is a complete guide to ordering or specifying Greenheck Class II centrifugal fan models.

Belt Drive (BIDW) Model Number Code



Motor Starting Torque

When selecting a motor for an industrial process fan, the motor must be capable of driving the fan at operating speed and also capable of accelerating the fan wheel, shaft and drive to the operating speed.

The fan performance tables and curves in this catalog show the brake horsepower required to operate the fan once it is brought to operating speed. For applications requiring a large air volume at a low static pressure, the BHP required at the fan's operating RPM may not be sufficient to initially start the fan. If the time required to bring the fan to speed is excessive, the motor winding insulation can be damaged due to excessive temperature rise and the life of the motor seriously affected.

For a belt drive industrial process fan, the required motor starting torque capability can be expressed by the following formula:

$$WR^2_M = WR^2_F \times \left(\frac{FRPM}{MRPM}\right)^2 \times (1.1)$$

WR^2_M = The moment of inertia that the motor must be capable of turning at the motor shaft, lb-ft^2

WR^2_F = The moment of inertia of the fan wheel, lb-ft^2

FRPM = Fan RPM

MRPM = Motor RPM

V-Belt Drives

Constant Speed Drives

Advantages of constant speed drives include low vibration levels, ease of assembly and low cost. Fan speed changes can be accomplished in most cases simply by changing the motor pulley.

Constant speed drives are recommended over variable speed drives for applications that require motors 15 HP and larger, and all applications requiring 3600 RPM motors.

Variable Speed Drives

Variable speed drives allow the fan speed to be changed by adjusting the pitch diameter of the motor pulley. The power to the fan must be off and locked out, and the belts must be removed before manually adjusting the variable pitch pulley.

High Temperature Operating Limits

Temperature	Material	Arrangement	Options Included
-20 to 180°F	Steel Aluminum Stainless Steel	3	None

Moments of Inertia (lb-ft^2)

Moments of inertia are shown for steel wheels. Aluminum wheels are one-third of the value shown.

Fan Size	Steel Backward Inclined Centrifugal Wheels			Steel Airfoil Centrifugal Wheels		
	Class I	Class II	Class III	Class I	Class II	Class III
12	2.2	2.7	3.8	–	–	—
13	3.1	4.3	5.6	–	–	—
15	5.4	6.1	7.8	–	–	—
16	7.9	8.9	10.5	–	–	—
18	12.5	13.8	18.9	16.9	23.9	14.6
20	17.3	19.1	35.2	23.4	38.1	21.6
22	32.0	32.0	52.3	38.8	57.2	31.6
24	44.2	49.4	71.3	54.1	78.2	44.1
27	66.2	79.1	96.9	85.5	129	72.9
30	105	136	144	139	178	113
33	152	198	210	234	261	165
36	260	303	399	362	428	273
40	435	505	628	582	665	426
44	642	863	927	842	955	612
49	971	1310	1380	1300	1450	935
54	1760	2120	2130	2100	2430	1570
60	2850	3480	3700	3180	3530	2390
66	4650	5070	5350	4550	5290	3400
73	6950	7570	7950	6860	7860	5070

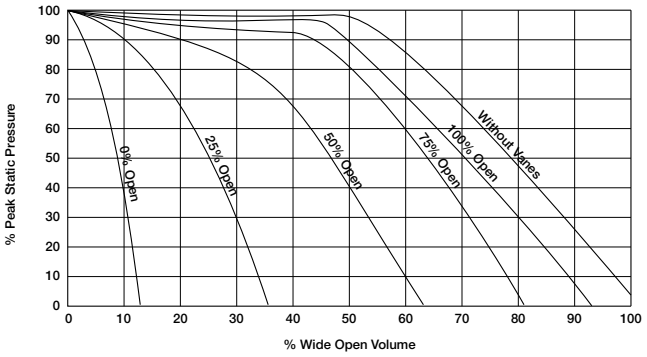
Fan RPM Limitations

The maximum allowable wheel RPM shown on the fan performance pages are for fans of standard steel operating at 70°F. Since the strength of the fan wheel, shaft and bearings decreases with an increase in temperature, maximum allowable speeds must be reduced by the correction factors shown below.

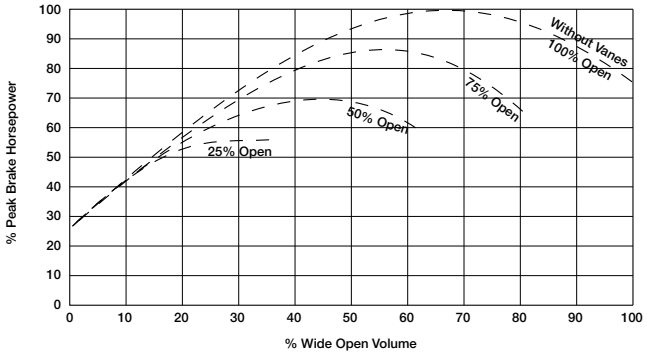
Maximum RPM Correction Factors For High Temperatures			
Temperature (°F)	Wheel Material		
	Aluminum	Steel	316 SS
70	1.00	1.00	1.00
200	1.00	.97	.92

Inlet Vane Performance

As inlet vanes are closed, they impart a spin to the airflow in the direction of wheel rotation and reduce airflow, static pressure and brake horsepower as shown in the graphs below. The graphs show how CFM, static pressure and brake horsepower are affected as inlet vanes are modulated from 100% open to 0% open in a typical variable air volume system. Graph 3 provides RPM and BHP correction factors for fans equipped with inlet vanes.



Graph 1



Graph 2

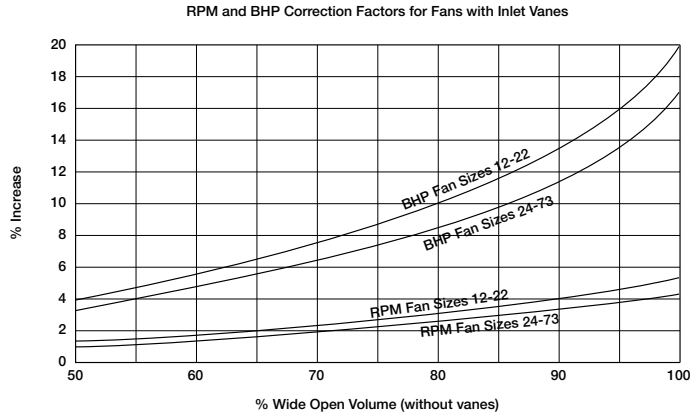
RPM & BHP Corrections

To compensate for pressure drop through inlet vanes, a percentage increase in fan RPM and BHP at full-load design conditions must be applied.

Enter graph 3 with "% wide open volume" (see page 9 for calculation of % WOV) and the appropriate fan size.

Move horizontally left to the "% increase" scale. Record the % increase.

Increase the selected fan RPM by the % increase shown. Also increase the BHP by the % increase shown.



Graph 3

Minimum Recommended Actuator Torque For Inlet Vanes (inch-lbs.) for Double-Width Fans

Use the table below to determine minimum torque required for an inlet vane actuator.

Class	Fan Size																		
	12	13	15	16	18	20	22	24	27	30	33	36	40	44	49	54	60	66	73
I	52	60	66	76	94	114	136	220	260	280	320	360	540	640	740	860	1000	1200	1400
II	76	86	98	116	146	176	220	320	360	400	460	520	840	980	1160	1360	1600	1920	2200
III	108	126	144	172	220	260	320	440	520	560	660	760	1240	1480	1760	2000	2400	3000	3400

Effect of Air Density – Temperature and Elevation

Ratings in the fan performance tables and curves of this catalog are based on standard air (clean, dry air with a density of 0.075 pounds per cubic foot, barometric pressure at sea level of 406.75 inches wg, temperature of 70°F). Selecting a fan to operate at conditions other than standard air requires an adjustment to both static pressure and brake horsepower.

One cubic foot of air has a constant volume regardless of temperature or elevation. However, air density changes with non-standard temperature or elevation. Therefore, when selecting a fan to operate at a non-standard air density using standard air density tables and curves, corrections must be made to parameters affected by air density. These parameters are static pressure and brake horsepower.

For example, a size 30 BIDW centrifugal fan is to deliver 35,000 CFM at 4.5 inches wg static pressure. Elevation is 4000 feet, temperature is 100°F.

The 4.5 inches wg static pressure refers to the static pressure at the operating air density, in this case at 4000 feet, 100°F. Intuitively, we realize that at higher than standard elevations and temperatures, air density will be lower than standard. Therefore, we must determine what static pressure at standard air density will equate to 4.5 inches wg static pressure at our operating density. Since standard air density is greater than operating air density in this case, we would expect the corrected static pressure to be greater than the operating static pressure.

The accompanying table gives air density correction factors for non-standard temperatures and elevations.

The example below shows the relationship of fan performance at sea level and at 4000 ft. elevation and 100°F.

Dry Air Density Correction Factor (I-P)

Multiply Standard Air Density, 0.075 lb_m/ft^3 by the Factor to obtain Density at Condition p_b

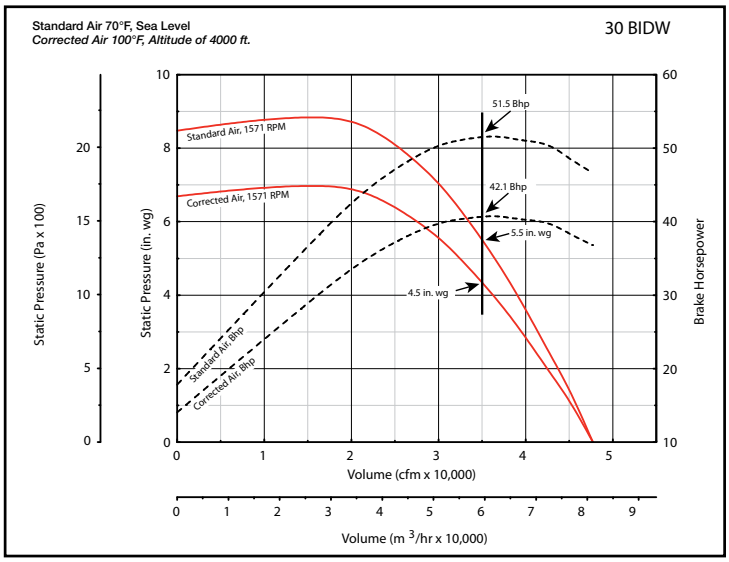
Altitude, (Z)	ft.	-1000	Sea Level	1000	2000	3000	4000	5000	6000	7000	8000	9000	10000
Barometric Pressure (p_b)	in. Hg	31.02	29.92	28.85	27.82	26.82	25.84	24.89	23.98	23.09	22.22	21.39	20.58
	in. wg	421.71	406.75	392.21	378.20	364.61	351.29	338.37	326.00	313.90	302.07	290.79	279.78
Temperature °F, (t)	-40	1.309	1.262	1.217	1.174	1.131	1.090	1.050	1.012	0.974	0.937	0.902	0.868
	0	1.195	1.152	1.111	1.071	1.033	0.995	0.959	0.924	0.889	0.856	0.824	0.793
	40	1.099	1.060	1.022	0.986	0.950	0.915	0.882	0.850	0.818	0.787	0.758	0.729
	70	1.037	1.000	0.964	0.930	0.896	0.864	0.832	0.801	0.772	0.743	0.715	0.688
	100	0.981	0.946	0.913	0.880	0.848	0.817	0.787	0.759	0.730	0.703	0.677	0.651
	150	0.901	0.869	0.838	0.808	0.779	0.750	0.723	0.696	0.670	0.645	0.621	0.598
	200	0.832	0.803	0.774	0.747	0.720	0.693	0.668	0.644	0.620	0.596	0.574	0.552
	250	0.774	0.746	0.720	0.694	0.669	0.645	0.621	0.598	0.576	0.554	0.534	0.513
	300	0.723	0.697	0.672	0.648	0.625	0.602	0.580	0.559	0.538	0.518	0.498	0.480
	350	0.678	0.654	0.631	0.608	0.586	0.565	0.544	0.524	0.505	0.486	0.468	0.450
	400	0.639	0.616	0.594	0.573	0.552	0.532	0.513	0.494	0.475	0.458	0.440	0.424
	450	0.604	0.582	0.561	0.541	0.522	0.503	0.484	0.467	0.449	0.432	0.416	0.401
	500	0.572	0.552	0.532	0.513	0.495	0.477	0.459	0.442	0.426	0.410	0.395	0.380
	550	0.544	0.525	0.506	0.488	0.470	0.453	0.436	0.420	0.405	0.390	0.375	0.361
	600	0.518	0.500	0.482	0.465	0.448	0.432	0.416	0.401	0.386	0.371	0.357	0.344
	700	0.474	0.457	0.440	0.425	0.409	0.394	0.380	0.366	0.352	0.339	0.327	0.314
	800	0.436	0.420	0.405	0.391	0.377	0.363	0.350	0.337	0.324	0.312	0.301	0.289
	900	0.404	0.390	0.376	0.362	0.349	0.336	0.324	0.312	0.301	0.289	0.278	0.268
	1000	0.376	0.363	0.350	0.337	0.325	0.313	0.302	0.291	0.280	0.269	0.259	0.250

Adapted from AMCA Standard 99-09, section 0200, Charts and Tables, with written permission from Air Movement and Control Association International, Inc.

Example:

The following example shows how to properly select the fan described above:

1. Since the air volume delivered by the fan is not affected by density, airflow remains 35,000 CFM.
2. Determine correction factor from chart for an elevation of 4000 feet and air temperature of 100°F. The correction factor is 0.817.
3. Divide the specified operating static pressure by the correction factor to determine the standard air density equivalent static pressure.
   Corrected static pressure = 4.5 inches wg ÷ 0.817 = 5.5 inches wg static pressure.
4. Refer to the fan performance table for a 30 BIDW. At 35,000 CFM and 5.5 inches wg static pressure:
   Fan RPM = 1571, BHP = 51.5
5. 1571 Fan RPM is required to produce the desired performance.
6. Since the horsepower selected refers to standard air density, this must be corrected to reflect actual BHP at the lighter operating air.
   Operating BHP = Standard BHP x 0.817, or 51.5 x 0.817 = 42.1 BHP.



If a fan is selected to operate at high temperatures, the motor must be of sufficient horsepower to handle the increased load at any lower operating temperature where the air is more dense. Assume the air entering the 30 BIDW fan at start-up is 0°F. For 0°F and 4000 feet elevation, the air density correction factor is 0.995

BHP at 0°F = 51.5 x 0.995 = 51.2, therefore, a 60 HP motor is required.

Effect of Installation on Performance

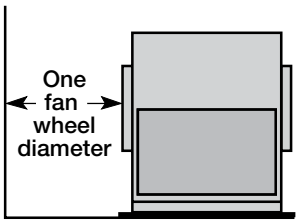
Ratings presented in the performance tables and curves of this catalog were derived from tests made in accordance with AMCA Standard 210 — "Laboratory Methods of Testing Fans for Ratings." The AMCA test procedure utilizes an open inlet and a straight outlet duct to assure maximum static regain.

Any installation with inlet or discharge configurations that deviate from this standard may result in reduced fan performance. Restricted or unstable flow at the fan inlet can cause pre-rotation of incoming air or uneven loading of the fan wheel yielding large system losses and increased sound levels. Free discharge or turbulent flow in the discharge ductwork will also result in system effect losses.

Static pressure losses due to inlet and discharge conditions can be expressed in terms of system effect factors. The static pressure for selection of the fans equals the system static pressure plus the system effect factor.

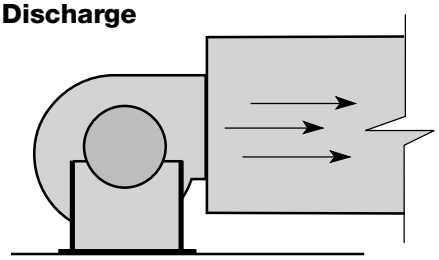
Some common inlet and discharge conditions which affect fan performance are:

Non-Ducted Inlet Clearance



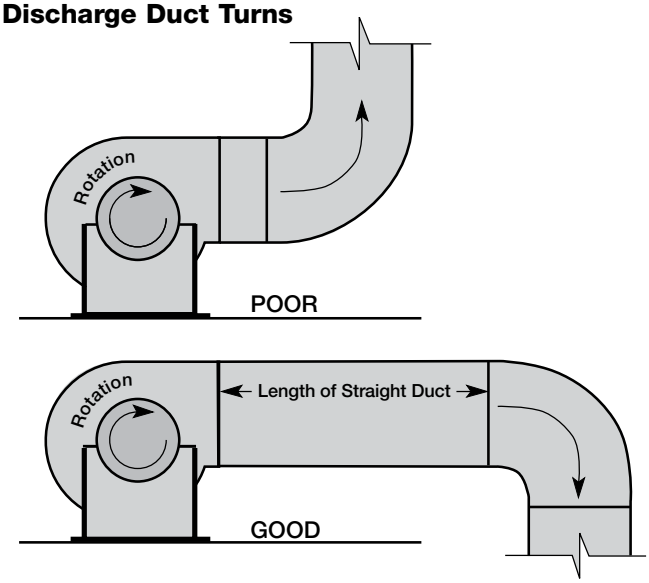
Installation of a fan with an open inlet too close to a wall or bulkhead will cause reduced fan performance. It is desirable to have one fan wheel diameter between the fan inlet and the wall. *System effect **Curve #2** depicts the pressure loss for one-half wheel diameter clearance.*

Free Discharge



Free or abrupt discharge into a plenum results in a reduction in fan performance. The effect of static regain in discharge is not realized. *System effect **Curve #1** depicts the pressure loss for free or abrupt discharge.*

Discharge Duct Turns

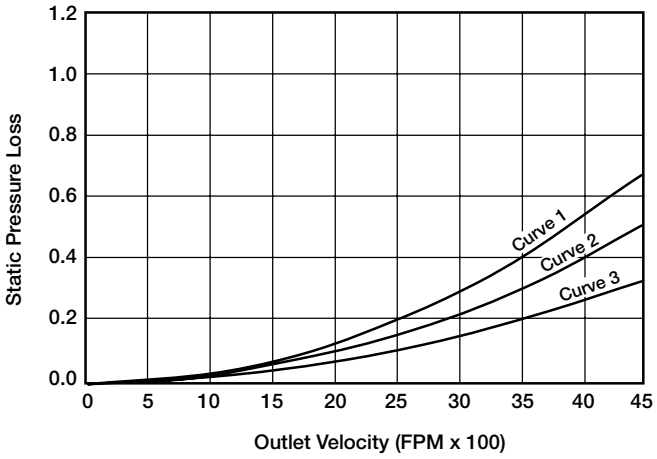


Duct turns located near the fan discharge should always be in the direction of the fan rotation.

Fan performance is reduced when duct turns are made immediately off the fan discharge. To achieve cataloged fan performance there should be at least three equivalent duct diameters of straight ductwork between the fan discharge and any duct turns. ***Curve #3** shows the system effect factor for two diameters of straight ductwork and **Curve #1** for one diameter.*

System Effect Factor Curves

Additional information on system effect factors can be found in AMCA Publication 201 — "Fans and Systems" and ASHRAE Handbooks.



Sound Performance Testing

AMCA Licensed Ratings

Sound tests of Model BIDW and AFDW were conducted in Greenheck Fan Corporation's AMCA Accredited sound laboratory in accordance with AMCA Standard 300. Inlet and outlet sound ratings comply with AMCA Publication 311, qualifying these models to bear the AMCA Seal for Sound and Air Performance. The sound power levels published here can be compared directly with those of other similarly rated fans, or used as a baseline to determine sound levels in occupied spaces.

The sound data in this brochure is the result of extensive testing, which included both inlet and outlet sound tests on double-width centrifugal fans. Typically, fan manufacturers publish only inlet sound for double-width fans. The assumption they make is that outlet sound is identical to inlet sound. Sound data based on this assumption is simply not accurate enough for today's sound sensitive installations. This assumption also ignores duct end corrections for outlet sound.

Test Methods

AMCA Standard 300 clearly defines methods used to test fans in a reverberant sound test room. The reverberant room is specifically designed to allow sound waves to be dispersed evenly throughout the room. The walls have a hard surface that reflects sound and are positioned to prevent resonances which could result in quiet areas within the room.

Sound power cannot be directly measured. The test method is based on a Reference Sound Source (RSS) substitution for determining fan sound power. The RSS is a laboratory calibrated device which has a known sound power output level. The test fan is installed as shown below. The RSS is energized and the sound pressure levels in the reverberant room are recorded. The fan is then operated without the RSS and the fan sound pressure levels are recorded for various points of operation. Since the sound power levels of the RSS are known, the substitution method is used to determine the sound power levels of the fan. This method is illustrated in the following example.

Calculating Fan Sound Power

Octave Band	1	2	3	4	5	6	7	8
Center Frequency (Hz)	63	125	250	500	1000	2000	4000	8000
Calibrated RSS Sound Power (Lwr)	82	81	81	81	81	81	79	78
Measured RSS Sound Pressure (Lpq)	70	74	75	76	75	74	69	61
Difference (Lwr-Lpq)	12	7	6	5	6	7	10	17
Measured Fan Sound Pressure (Lpm)	68	72	69	69	68	62	57	46
Substitution (Lwr-Lpq, from above)	+12	+7	+6	+5	+6	+7	+10	+17
Fan Sound Power (Lw)	80	79	75	74	74	69	67	63

Note: Sound level shown in dB

Test Setups

The illustrations show where the sound levels were measured with respect to the fan. Inlet sound was tested as in Figure 2 of AMCA Standard 300 and outlet sound was tested as in Figure 3. Inlet and outlet sound were determined in the same inlet and outlet configurations as the air tests. (Installation Type B - Free Inlet, Ducted Outlet).

Since double-width fans are more often ducted at the inlet, they are tested only for sound radiated from the fan inlet.

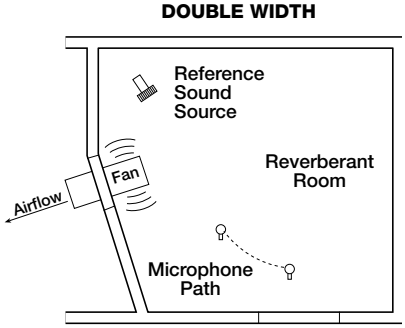


Figure 2:
AMCA Standard 300 - Fan Inlet Sound Testing
Installation Type B: Free Inlet, Ducted Outlet

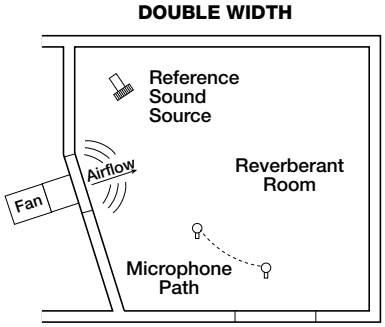


Figure 3:
AMCA Standard 300 - Fan Outlet Sound Testing
Installation Type B: Free Inlet, Ducted Outlet
(Ratings include the effects of duct end correction)

Interpreting Sound Data

Sound power levels in this catalog are presented as dB (re 10^{-12} watts) in each of the eight full octave bands with center frequencies from 63 Hz to 8000 Hz. They are also presented as a single A-weighted sound power level, L_WA. Charts are provided covering the full range of fan speeds and percent wide open volume (% WOV) for each fan size. Outlet sound power data is based on a ducted outlet and therefore includes duct end reflection corrections.

Outlet Sound – Duct End Corrections

This correction accounts for sound that is reflected back into the duct where there is an abrupt termination of the duct.

AMCA Standard 300 requires that outlet sound power for fans with ducted outlets include Duct End Corrections. These corrections account for any sound power that may be present in the duct but is not measured in the reverberant room, because it is reflected back into the duct at the discharge.

Duct end corrections are included in all outlet sound power ratings.

Duct End Corrections (dB)			
Size	Double-Width Fans		
	63 Hz	125 Hz	250 Hz
18	9	5	2
20	9	4	1
22	8	4	1
24	7	3	
27	6	3	
30	6	2	
33	5	2	
36	5	2	
40	4	1	
44	4	1	
49	3		
54	3		
60	2		
66	2		
73	2		

Tolerance and Application

The certification process in AMCA Standard 311 call for a precertification test to verify original test results. Check tests are also required every three (3) years for each model licensed. Test data must agree with the published sound power within the following tolerance levels:

Octave Band	1	2	3	4	5	6	7	8
Center Frequency (Hz)	63	125	250	500	1000	2000	4000	8000
Tolerance	+6	+3	+3	+3	+3	+3	+3	+3

These tolerance levels are a good indication of the variance that could occur from one fan or test setup to another. Once installed however, there are many other factors that can affect the sound power generated by a fan.

The lower frequencies (below 125 Hz) are greatly affected by vibration. Fan wheel balance, motor balance, drive alignment, etc., all affect the vibration level of the fan and can increase sound power in the 1st and 2nd octaves. When ducts are not properly isolated from the fan, these vibrations can be transmitted into the ducts, which can generate additional low frequency sound.

Sound power generated by a fan can also be influenced by system effects. System effects are pressure losses caused by inlet or outlet restrictions, or other conditions causing non-uniform airflow at the inlet or discharge of a fan (see AMCA Publication 201). Examples include inlet or outlet elbows too close to a fan, restricted inlets and fan accessories. While system effects can prevent fans from reaching their designed air performance, they can also result in increased sound power levels. Typically, system effects cause pressure fluctuations which influence the lower frequencies. Poor inlet conditions can also greatly increase sound levels at the blade pass frequency (BPF). The blade pass frequency refers to how often a blade or wheel fin passes a stationary location of the housing and can be calculated using the following equation:

Per AMCA: Blade Pass Frequency

$$\text{BPF (Hz)} = \left(\frac{\text{Fan RPM x Number of Blades}}{60}\right)^2$$

NOTE: All BISW and AFSW wheels have nine blades.

Sound is becoming increasingly critical for most fan installations. Greenheck employs extensive research and testing to provide sound data that is as thorough and accurate as possible. However, sound pressure levels in occupied spaces are affected by the acoustical qualities of the space, distance from source to receiver, etc. Therefore, published sound power data can be used only as a baseline for determining the resulting sound pressure levels an occupant hears. While Greenheck provides products which meet published sound power levels, no manufacturer can be responsible for poor installations or system designs beyond their control. For further information on installation practices, see AMCA Publication 201, “Fans and Systems”.

Sound Power

Sound power data is charted for the full range of RPM and percent wide open volume (% WOV) for each unit size.

The % WOV is a convenient way to indicate the operating point (pressure and CFM) for a given fan RPM. To calculate the % WOV for a given fan size, use the equation given on the performance page.

Use the following procedure to calculate sound data for a specific Fan RPM and % WOV:

$$\%\ \text{WOV} = \frac{\text{CFM x 100}}{\text{RPM x K}}$$

1. Determine the eight sound power levels for the specified % WOV using the higher Fan RPM shown.
2. Determine the eight sound power levels for the specified % WOV using the lower Fan RPM shown.
3. Interpolate between the higher and lower sound power levels using the specified RPM.

Sample Fan Selection

The purpose of these two pages is to demonstrate the manual centrifugal fan selection process. These pages also contain helpful tips to check your fan selection, as well as a step-by-step set of instructions on how to use this manual to properly select a centrifugal fan.

An important point to remember when manually selecting a centrifugal fan is that more than one fan is available to meet the desired performance (CFM and Ps). Selection criteria such as unit size, efficiency, speed, outlet velocity, horsepower, or construction material may also dictate which fan is chosen.

Sound and Air performance are identical for Greenheck Series 21 and 41 centrifugal fans.

The following example explains the model number code for both series of centrifugal fans.

20-BIDW-41

- Fan Size
- Wheel
  - BI - Backward-Inclined
  - AF - Airfoil
- Series 21 - Permalock™
  Series 41 - Welded
- DW - Double-width, Double-inlet

A The Outlet Area is used for the Outlet Velocity (OV)

$$OV = \frac{CFM}{OA}$$

calculation.

B The Maximum BHP can be calculated for a given fan RPM along the fan curve.

C The minimum starting HP is determined by the inertia (WR^2) of the fan and motor. See page 4 for a complete motor starting torque formula.

D The maximum fan RPM for each fan class is listed.

E Constant HP curves are plotted for each motor HP size.

F The % WOV is used to identify the fan operating point. The lines in the fan curve or the equation can be used.

20 BIDW

Wheel Diameter = 20 in.	C Minimum Starting HP = ¾
A Outlet Area = 4.14 ft.²	D Maximum RPM Class I = 1960
Tip Speed = 5.24 x RPM	Maximum RPM Class II = 2554
B Maximum BHP = (RPM/832)³	Maximum RPM Class III = 3219

CFM	OV	STATIC PRESSURE (in. wg)																			
		0.25		0.50		0.75		1.00		1.25		1.50		1.75		2.00		2.25		2.50	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
3000	724	489	0.20	596	0.34	699	0.52														
3800	917	561	0.31	654	0.47	736	0.65	823	0.87	900	1.11	977	1.37								
4600	1111	639	0.45	723	0.65	797	0.85	865	1.07	936	1.31	1005	1.59	1069	1.87	1132	2.17				
5400	1304	720	0.65	796	0.87	864	1.11	927	1.35	987	1.60	1042	1.85	1105	2.16	1165	2.48	1221	2.81	1274	3.14
6200	1497	803	0.89	874	1.16	936	1.42	995	1.69	1050	1.96	1103	2.25	1154	2.54	1201	2.83	1257	3.19	1310	3.55
7000	1690	888	1.19	954	1.50	1012	1.80	1066	2.10	1119	2.40	1167	2.71	1215	3.03	1262	3.35	1306	3.67	1348	4.00
7800	1884	974	1.57	1035	1.92	1090	2.25	1142	2.58	1190	2.91	1237	3.25	1282	3.59	1324	3.94	1367	4.30	1409	4.66
8600	2077	1061	2.02	1119	2.41	1171	2.78	1219	3.14	1265	3.51	1309	3.87	1352	4.25	1393	4.62	1432	5.00	1471	5.39
9400	2270	1149	2.56	1203	2.98	1252	3.39	1298	3.79	1342	4.19	1384	4.59	1424	4.99	1463	5.40	1502	5.81	1539	6.22
10200	2463	1238	3.19	1288	3.64	1335	4.10	1379	4.54	1421	4.97	1461	5.41	1499	5.84	1536	6.27	1573	6.71	1609	7.15
11000	2657	1328	3.93	1374	4.41	1419	4.90	1461	5.39	1501	5.85	1539	6.32	1576	6.79	1612	7.26	1646	7.72	1680	8.20
11800	2850	1419	4.77	1461	5.28	1504	5.81	1544	6.34	1583	6.85	1619	7.35	165	Step 1		8.36	1722	8.85	1755	9.35
12600	3043	1509	5.74	1548	6.27	1589	6.83	1628	7.40	1665	7.96	1700	8.50	173			9.57	1800	10.1	1831	10.6
13400	3236	1600	6.83	1637	7.39	1677	7.99	1715	8.59	1748	9.10	1780	9.57	181		1847	10.9	1878	11.5	1908	12.1
14200	3429	1691	8.05	1726	8.65	1762	9.27	1797	9.90	1832	10.5	1865	11.2	1897	11.8	1928	12.4	1958	13.0	1987	13.6
15000	3623	1782	9.41	1816	10.1	1849	10.7	1883	11.4	1916	12.0	1949	12.7	1980	13.4	2010	14.0	2039	14.7	2067	15.3

CFM	OV	STATIC PRESSURE (in. wg)																			
		2.50		3.00		3.50		4.00		4.50		5.00		5.50		6.00		6.50		7.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
7000	1690	1348	4.00	1444	4.80	1534	5.63	1619	6.49	1700	7.39	1786	8.38								
7800	1884	1409	4.66	1486	5.39	1571	6.23	1655	7.15	1734	8.09	1809	9.05	1881	10.0	1959	11.1				
8600	2077	1471	5.39	1547	6.18	1619	6.98	1692	7.85	1770	8.85	1845	9.86	1916	10.9	1984	12.0	2049	13.0	2119	14.2
9400	2270	1539	6.22	1610	7.06	1680	7.92	1746	8.80	1809	9.68	1881	10.7	1952	11.8	2020	12.9	2085	14.1	2148	15.2
10200	2463	1609	7.15	1677	8.05	1743	8.96	1808	9.89	1870	10.8	1929	11.8	1989	12.8	2056	14.0	2121	15.2	2184	16.4
11000	2657	1680	8.20	1747	9.15	1810	10.1	1871	11.1	1932	121.0	1990	13.1	2046	14.1	2100	15.2	2158	16.3	2220	17.6
11800	2850	1755	9.35	1818	10.4	1880	11.4	1938	12.4	1995	13.5	2052	14.6	2108	15.6	2161	16.7	2212	17.8	2262	19.0
12600	3043	1831	10.6	1892	11.7	1951	12.8	2008	13.9	2063	150.0	2116	16.1	2170	17.3	2223	18.4	2274	19.6	2323	20.7
13400	3236	1908	12.1	1967	13.2	2023	14.3	2079	15.5	2133	167.0	2185	17.8	2235	19.0	2285	20.2	2336	21.4	2384	22.7
14200	3429	1987	13.6	2044	14.8	2099	16.0	2152	17.2	2204	185.0	2255	19.7	2305	20.9	2352	22.2	2399	23.4	2447	24.7
15000	3623	2067	15.3	2122	16.6	2175	17.8	2227	19.1	2276	204.0	2326	21.7	2375	23.0	2422	24.3	2467	25.6	2512	27.0
15800	3816	2148	17.1	2201	18.5	2253	19.8	2303	21.2	2352	225.0	2398	23.9	2446	25.2	2492	26.6	2537	28.0	2581	29.4
16600	4009	2229	19.1	2281	20.5	2331	22.0	2380	23.4	2428	24.8	2474	26.2	2518	27.6	2564	29.0	2608	30.5	2651	31.9
17400	4202	2312	21.3	2362	22.8	2411	24.3	2458	25.8	2505	27.2	2550	28.7	2593	30.2	2636	31.7	2679	33.2	2722	34.7
18200	4396	2395	23.7	2444	25.2	2491	26.8	2538	28.3	2582	29.9	2626	31.4	2669	32.9	2711	34.5	2752	36.0	2793	37.6
19000	4500	2470	26.1	2526	27.8	2573	29.4	2618	31.0	2661	32.7	2704	34.3	2746	35.9	2787	37.5	2827	39.1	2867	40.7

CFM	OV	STATIC PRESSURE (in. wg)																			
		7.00		7.50		8.00		8.50		9.00		10.00		11.00		12.00		13.00		14.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
9000	2173	2130	14.7	2195	15.9	2262	17.1														
9900	2391	2170	15.9	2231	17.1	2289	18.4	2346	19.6	2405	20.9	2526	23.7								
10800	2608	2211	17.3	2272	18.5	2330	19.8	2387	21.1	2442	22.4	2548	25.1	2656	28.0	2766	31.1				
11700	2826	2255	18.7	2313	20.0	2371	21.4	2428	22.7	2482	24.1	2588	26.9	2689	29.8	2785	32.7	2887	35.9	2988	39.2
12600	3043	2323	20.7	2371	21.9	2417	23.1	2469	24.4	2524	25.9	2629	28.8	2729	31.8	2825	34.9	2918	38.0	3006	41.1
13500	3260	2392	22.9	2440	24.2	2486	25.4	2530	26.7	2574	28.0	2670	30.8	2770	33.9	2866	37.1	2958	40.4	3047	43.6
14400	3478	2463	25.3	2509	26.6	2555	27.9	2599	29.2	2643	30.6	2726	33.3	2812	36.2	2907	39.5	2999	42.8	3087	46.2
15300	3695	2538	27.8	2581	29.2	2625	30.6	2669	32.0	2712	33.4	2795	36.2	2874	39.1	2951	42.0	3040	45.4	3129	49.0
16200	3913	2616	30.6	2658	32.1	2699	33.5	2740	34.9	2782	36.4	2864	39.4	2943	42.4	3019	45.4	3092	48.4	3170	51.8
17100	4130	2695	33.6	2737	35.1	2777	36.6	2817	38.1	2856	39.7	2935	42.7	3013	45.9	3088	49.0	3160	52.2		
18000	4347	2775	36.9	2816	38.4	2856	40.0	2896	41.6	2934	43.1	3008	46.3	3083	49.6	3158	52.9				
18900	4565	2857	40.3	2897	42.0	2936	43.6	2975	45.2	3013	46.9	3086	50.2	3157	53.6						
19800	4782	2942	44.1	2980	45.8	3017	47.5	3055	49.2	3092	50.9	3165	54.3								
20700	5000	3028	48.1	3065	49.8	3101	51.6	3137	53.4	3173	55.1										
21600	5217	3114	52.3	3150	54.2	3186	56.0														
22500	5434	3201	56.9																		

Performance certified is for model BIDW Arrangement 3, Installation Type B: free inlet, ducted outlet.
Performance ratings do not include the effects of appurtenances (accessories).
Power rating (BHP) does not include transmission losses.

Fan Selection Procedure

STEP 1
Enter the performance table with the desired CFM and Ps. Obtain the fan RPM, BHP and Class.

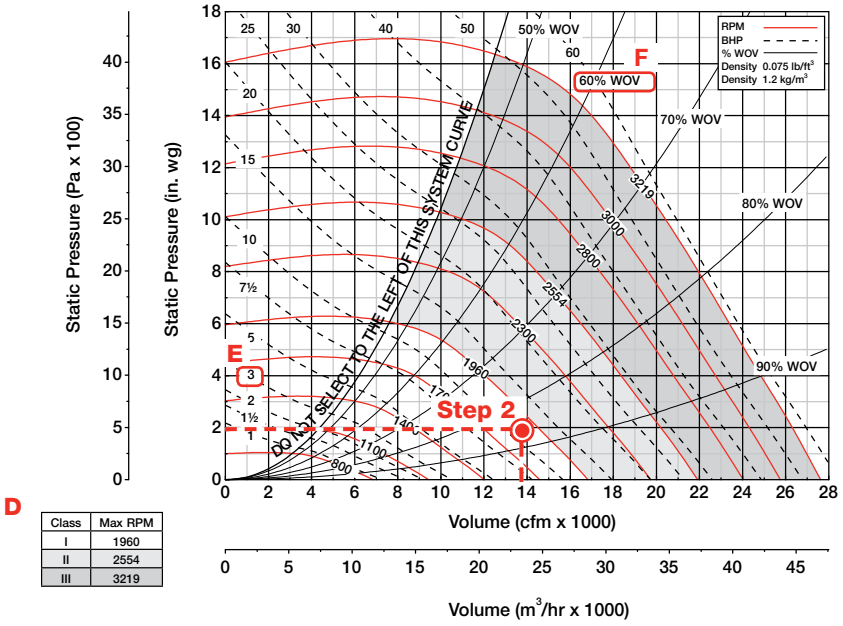
EXAMPLE
For this example, we will use 13,400 CFM at 2.0 Ps. This gives us a fan RPM of 1847, requiring 10.9 BHP, with Class I construction.

NOTE: If your specific fan selection requires inlet vanes or if the fan operating point is not at standard air (70°F), refer to the inlet vane and air density correction factor graphs and tables found on pages 5 and 6.

STEP 2
Enter the Fan Curve with the desired CFM and Ps. Obtain the fan operating point, % WOV, Motor HP and verify fan class by curve shading.

EXAMPLE
For this example, the fan operating point is at 85% WOV using a 15 HP motor.

20 BIDW



Class	Max RPM
I	1960
II	2554
III	3219

STEP 3
Enter the Fan Sound Table with the Fan RPM from the performance table and the % WOV from the fan curve. Obtain the eight octave ratings for inlet (L_{Wi}) and Outlet (L_{Wo}) Sound Power.

EXAMPLE
For this example, the eight octave ratings are circled in the table below.

NOTE: The exact % WOV for your desired performance can be found using the equation at the top of the Sound Power Tables if it is not published. The eight octave ratings can then be found using the interpolation instructions found in the Sound Performance section on pages 8 and 9.

% WOV = (CFM X 100) / (RPM X 8.58)

Sound Power [dB Ref 10^{-12} watts]

Step 3

Inlet Sound Power, L_{Wi}										
RPM	%WOV	1	2	3	4	5	6	7	8	L_{Wi}A
550	100	78	75	74	78	68	62	56	52	76
	80	76	73	71	75	67	60	54	50	74
	60	75	70	70	76	67	60	54	50	74
	50	75	69	69	76	67	60	54	50	75
	40	74	69	69	77	67	60	54	50	75
800	100	79	91	83	82	76	72	64	60	83
	80	80	89	81	78	72	67	59	54	80
	60	77	83	76	77	71	67	59	54	77
	50	76	80	74	76	71	67	60	55	77
	40	77	78	74	76	71	67	60	55	77
1100	100	85	92	91	89	85	81	74	70	90
	80	84	88	88	87	81	77	69	65	87
	60	83	84	83	83	79	76	70	65	85
	50	80	83	82	83	79	76	70	66	84
	40	80	83	82	83	78	75	70	66	84
1600	100	91	94	98	95	92	89	83	78	97
	80	88	91	96	93	90	86	80	75	95
	60	87	88	93	89	86	83	78	75	92
	50	87	88	91	88	85	82	78	75	91
	40	89	88	90	87	85	82	78	76	90
2200	100	98	100	103	105	98	96	91	88	105
	80	95	97	100	103	96	92	87	84	102
	60	92	93	98	99	93	91	87	84	100
	50	93	93	98	97	93	90	87	84	99
	40	95	95	98	98	92	90	88	86	99
3219	100	105	109	110	114	110	106	102	98	115
	80	103	106	107	111	107	102	98	94	112
	60	100	102	105	107	104	101	97	94	109
	50	101	103	105	105	103	100	97	94	108
	40	103	105	106	106	103	99	98	96	108

Outlet Sound Power, L_{Wo}										
RPM	%WOV	1	2	3	4	5	6	7	8	L_{Wo}A
550	100	90	78	75	68	67	59	52	47	73
	80	90	77	71	64	64	54	47	45	70
	60	83	74	68	63	62	54	48	45	67
	50	82	73	67	63	63	54	48	45	67
	40	82	73	67	63	63	54	48	46	67
800	100	93	96	83	77	77	71	63	57	84
	80	90	92	81	73	72	64	57	52	80
	60	87	84	76	72	69	63	57	53	75
	50	87	82	74	72	68	62	57	54	74
	40	89	83	73	71	68	62	57	54	74
1100	100	99	93	90	86	86	80	74	67	90
	80	96	92	88	83	81	74	67	61	86
	60	91	87	83	78	77	71	66	61	82
	50	91	86	82	77	76	71	66	62	81
	40	92	86	81	76	75	70	66	62	80
1600	100	105	98	98	94	93	89	85	77	98
	80	102	95	96	91	92	87	81	73	96
	60	100	91	93	87	87	83	77	72	92
	50	100	92	92	86	86	81	76	72	91
	40	100	93	92	85	84	81	76	72	90
2200	100	109	105	106	109	102	97	93	88	109
	80	107	101	101	105	98	93	89	83	105
	60	103	97	96	99	96	91	86	81	100
	50	104	98	95	97	94	89	85	81	99
	40	107	100	95	95	92	89	85	81	98
3219	100	117	115	113	118	114	108	104	99	118
	80	115	112	109	113	110	104	100	94	114
	60	111	108	105	107	106	102	97	92	110
	50	112	109	104	105	104	100	96	92	108
	40	116	112	106	103	102	99	95	92	107

The sound power level ratings shown are in decibels, referred to 10^{-12} watts calculated per AMCA Standard 301. Values shown are for inlet L_{Wi}, L_{Wi}A and outlet L_{Wo}, L_{Wo}A sound power levels for Installation Type B: free inlet, ducted outlet. Outlet ratings include the effects of duct end correction. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.

GREENHECK
Building Value in Air.

12 BIDW

Wheel Diameter = 12¼ in.
Outlet Area = 1.55 ft.^{2}
Tip Speed = 3.21 x RPM
Maximum BHP = (RPM/1917)^3

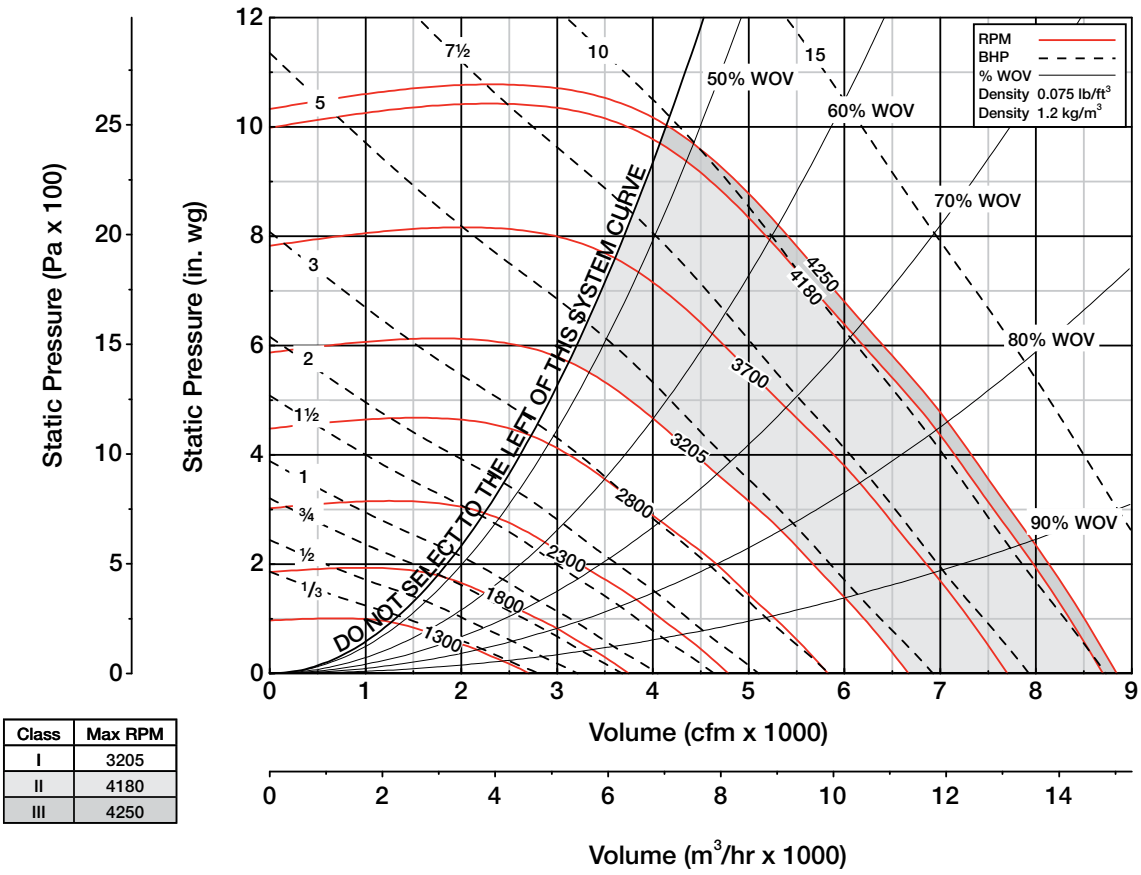
Minimum Starting HP = ⅓
Maximum RPM Class I = 3205
Maximum RPM Class II = 4180
Maximum RPM Class III = 4250

CFM	OV	STATIC PRESSURE (in. wg)																			
		0.25		0.50		0.75		1.00		1.25		1.50		1.75		2.00		2.25		2.50	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1300	838	865	0.09	1046	0.15	1203	0.23														
1540	993	949	0.12	1123	0.20	1265	0.27	1399	0.36	1519	0.45										
1780	1148	1042	0.16	1203	0.24	1341	0.33	1461	0.42	1579	0.52	1687	0.62	1787	0.73						
2020	1303	1139	0.21	1286	0.30	1420	0.40	1537	0.50	1643	0.60	1747	0.71	1846	0.82	1939	0.94	2026	1.06		
2260	1458	1239	0.27	1373	0.37	1501	0.47	1616	0.58	1719	0.69	1815	0.81	1907	0.93	1999	1.06	2086	1.19	2168	1.32
2500	1612	1340	0.34	1467	0.45	1584	0.56	1696	0.68	1798	0.80	1891	0.92	1979	1.05	2062	1.18	2147	1.32	2228	1.46
2740	1767	1443	0.43	1564	0.54	1671	0.66	1778	0.79	1877	0.92	1970	1.05	2056	1.19	2137	1.33	2214	1.47	2290	1.61
2980	1922	1549	0.53	1662	0.65	1764	0.78	1863	0.91	1959	1.05	2049	1.20	2134	1.34	2214	1.49	2290	1.64	2363	1.79
3220	2077	1656	0.64	1762	0.78	1860	0.91	1951	1.05	2043	1.20	2131	1.35	2214	1.51	2293	1.67	2368	1.82	2440	1.98
3460	2232	1763	0.77	1863	0.92	1958	1.06	2045	1.21	2129	1.36	2214	1.52	2295	1.69	2373	1.86	2447	2.03	2518	2.20
3700	2387	1872	0.92	1966	1.08	2056	1.23	2141	1.39	2220	1.55	2300	1.72	2378	1.89	2454	2.07	2527	2.24	2597	2.43
3940	2541	1982	1.09	2069	1.26	2156	1.42	2238	1.59	2315	1.76	2388	1.93	2464	2.11	2537	2.29	2609	2.48	2677	2.67
4180	2696	2091	1.27	2175	1.46	2258	1.63	2336	1.81	2411	1.99	2482	2.16	2551	2.35	2623	2.54	2691	2.74	2759	2.94
4420	2851	2202	1.48	2282	1.68	2360	1.87	2436	2.05	2508	2.24	2577	2.42	2643	2.61	2709	2.81	2777	3.01	2842	3.22
4660	3006	2314	1.72	2389	1.92	2463	2.12	2537	2.32	2607	2.51	2674	2.71	2738	2.91	2800	3.11	2864	3.32	2927	3.53
4900	3161	2425	1.97	2497	2.19	2567	2.40	2638	2.61	2706	2.81	2771	3.02	2834	3.22	2895	3.43	2954	3.65	3014	3.87

CFM	OV	STATIC PRESSURE (in. wg)																			
		2.50		3.00		3.50		4.00		4.50		5.00		5.50		6.00		6.50		7.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
2500	1612	2228	1.46	2381	1.75	2523	2.05														
2730	1761	2287	1.60	2439	1.91	2579	2.23	2711	2.56												
2960	1909	2357	1.77	2497	2.08	2637	2.42	2768	2.76	2891	3.11	3008	3.47								
3190	2058	2430	1.96	2565	2.28	2696	2.62	2826	2.98	2948	3.35	3065	3.72	3176	4.11						
3420	2206	2504	2.16	2638	2.50	2763	2.85	2884	3.21	3006	3.59	3122	3.99	3233	4.39	3339	4.80	3441	5.21		
3650	2354	2580	2.38	2712	2.73	2835	3.10	2952	3.47	3065	3.86	3181	4.27	3291	4.68	3396	5.11	3498	5.54	3596	5.98
3880	2503	2657	2.61	2787	2.99	2909	3.37	3024	3.76	3133	4.15	3239	4.56	3349	4.99	3454	5.43	3555	5.88	3653	6.33
4110	2651	2735	2.86	2864	3.26	2984	3.66	3098	4.06	3206	4.48	3309	4.89	3408	5.32	3513	5.77	3613	6.24	3711	6.71
4340	2800	2814	3.12	2941	3.54	3060	3.97	3173	4.39	3280	4.82	3382	5.25	3480	5.70	3574	6.14	3672	6.61	3769	7.10
4570	2948	2895	3.41	3019	3.85	3137	4.29	3248	4.74	3354	5.19	3456	5.64	3553	6.09	3646	6.56	3737	7.03	3828	7.51
4800	3096	2978	3.72	3098	4.17	3215	4.63	3325	5.10	3430	5.57	3530	6.04	3626	6.52	3719	7.00	3809	7.48	3896	7.97
5030	3245	3062	4.06	3180	4.52	3293	5.00	3402	5.48	3506	5.98	3606	6.47	3701	6.96	3793	7.46	3882	7.96	3968	8.47
5260	3393	3151	4.43	3263	4.90	3373	5.39	3480	5.89	3583	6.40	3682	6.92	3776	7.43	3868	7.95	3956	8.47	4041	8.99
5490	3541	3241	4.82	3346	5.30	3455	5.81	3560	6.32	3661	6.85	3759	7.38	3853	7.92	3943	8.46	4031	9.00	4115	9.54
5720	3690	3333	5.24	3435	5.74	3538	6.25	3641	6.78	3740	7.32	3837	7.87	3929	8.43	4019	8.99	4106	9.55	4190	10.1
5950	3838	3425	5.69	3525	6.20	3622	6.72	3723	7.27	3820	7.82	3915	8.39	4007	8.97	4096	9.55	4182	10.1	4266	10.7

CFM	OV	STATIC PRESSURE (in. wg)																			
		7.00		7.50		8.00		8.50		9.00		10.00		11.00		12.00		13.00		14.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
3500	2258	3559	5.75																		
3800	2451	3633	6.21	3728	6.66	3819	7.12														
4100	2645	3708	6.69	3802	7.17	3893	7.65	3982	8.14	4068	8.64										
4400	2838	3784	7.21	3878	7.71	3968	8.21	4056	8.72	4142	9.24										
4700	3032	3864	7.76	3954	8.27	4044	8.80	4132	9.33	4217	9.87										
5000	3225	3959	8.40	4042	8.91	4124	9.43	4209	10.0												
5300	3419	4054	9.08	4137	9.62	4218	10.2														
5600	3612	4151	9.81	4233	10.4																
5900	3806	4249	10.6																		
6200	4000																				
6500	4193																				
6800	4387																				
7100	4580																				
7400	4774																				
7700	4967																				
8000	5161																				

Performance certified is for model BIDW Arrangement 3, Installation Type B: free inlet, ducted outlet.
Performance ratings do not include the effects of appurtenances (accessories).
Power rating (BHP) does not include transmission losses.



Class	Max RPM
I	3205
II	4180
III	4250

% WOV = (CFM X 100) / (RPM X 2.08)

Sound Power [dB Ref 10^{-12} watts]

		Inlet Sound Power, L_{Wi}								
RPM	%WOV	1	2	3	4	5	6	7	8	L_{Wi}A
900	100	68	74	73	72	70	65	58	52	74
	80	68	74	73	72	69	65	58	52	74
	60	67	69	72	72	69	65	58	51	74
	50	67	69	72	72	69	65	58	52	74
	40	67	69	72	72	69	64	58	51	73
1300	100	74	78	81	77	73	71	66	58	79
	80	71	77	80	74	71	68	62	55	77
	60	71	74	75	73	70	67	62	55	75
	50	71	74	75	72	71	67	63	55	75
	40	72	74	74	72	71	68	63	55	75
1900	100	83	84	87	86	82	78	77	69	88
	80	81	81	85	84	79	75	71	64	85
	60	80	80	81	83	78	73	70	65	84
	50	83	83	81	83	78	73	71	66	84
	40	83	83	81	83	79	73	71	66	84
2600	100	92	95	91	97	93	88	88	87	98
	80	90	96	89	96	90	85	84	79	96
	60	89	93	87	92	88	83	82	77	93
	50	89	90	87	91	87	83	81	77	92
	40	90	90	87	90	87	83	81	78	92
3800	100	98	98	97	103	100	95	94	95	105
	80	96	95	94	100	97	92	90	87	101
	60	91	94	93	97	94	90	88	85	99
	50	92	96	94	97	93	90	88	86	99
	40	91	97	95	98	94	90	88	86	100
4250	100	100	101	99	104	103	98	96	97	107
	80	97	98	97	102	100	95	92	90	104
	60	93	97	96	99	97	93	90	88	101
	50	93	99	97	99	96	92	90	88	101
	40	93	99	98	100	97	93	91	88	102

		Outlet Sound Power, L_{Wo}								
RPM	%WOV	1	2	3	4	5	6	7	8	L_{Wo}A
900	100	87	82	75	65	65	62	53	45	72
	80	85	78	74	64	65	60	51	44	71
	60	83	75	73	63	64	60	51	44	70
	50	85	76	73	63	64	60	51	44	70
	40	87	77	73	63	64	60	52	44	70
1300	100	93	83	82	74	72	71	64	54	79
	80	91	81	80	71	70	67	59	50	77
	60	90	80	80	69	69	65	59	51	76
	50	92	81	80	69	69	65	59	52	76
	40	94	82	80	69	69	65	59	52	76
1900	100	99	90	92	84	80	79	75	67	88
	80	96	88	90	82	78	76	70	61	86
	60	96	88	90	80	76	73	68	62	84
	50	98	87	87	79	76	73	68	63	83
	40	100	90	88	79	76	73	68	63	84
2600	100	105	95	94	95	88	87	84	80	96
	80	102	92	91	91	86	83	79	71	92
	60	102	90	89	90	83	80	75	70	90
	50	104	92	90	90	83	80	75	71	91
	40	104	94	91	90	83	80	75	72	91
3800	100	111	104	101	104	99	97	94	92	105
	80	110	101	98	101	97	94	89	85	102
	60	109	99	96	97	93	91	86	82	99
	50	109	102	97	97	93	90	86	83	99
	40	110	104	100	97	92	89	86	83	99
4250	100	112	107	103	105	102	99	96	95	108
	80	112	105	100	102	100	97	92	88	105
	60	110	103	98	99	96	93	89	85	101
	50	110	105	100	99	96	92	89	85	101
	40	111	107	103	100	95	92	89	86	102

The sound power level ratings shown are in decibels, referred to 10^{-12} watts calculated per AMCA Standard 301. Values shown are for inlet L_{Wi}, L_{Wi}A and outlet L_{Wo}, L_{Wo}A sound power levels for Installation Type B: free inlet, ducted outlet. Outlet ratings include the effects of duct end correction. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.

13 BIDW

Wheel Diameter = 12½ in.
Outlet Area = 1.89 ft.^{2}
Tip Speed = 3.53 x RPM
Maximum BHP = (RPM/1631)^3

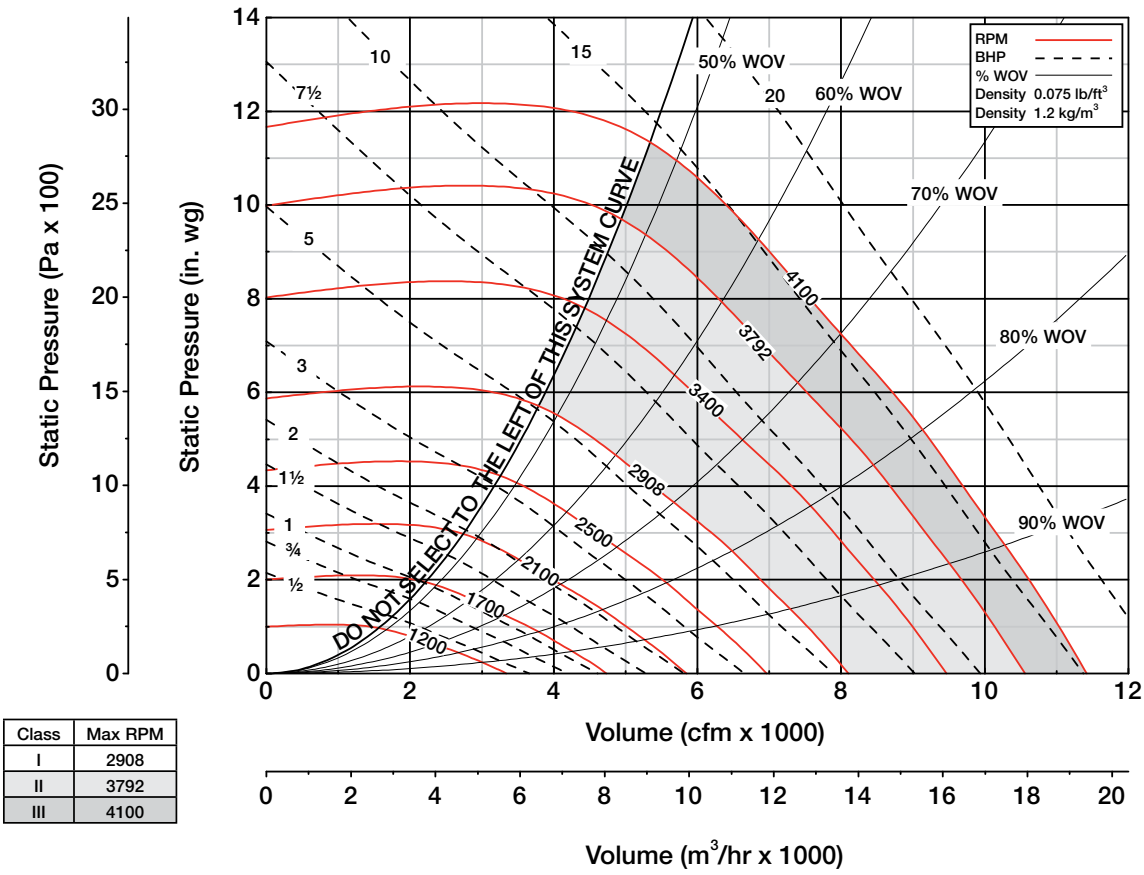
Minimum Starting HP = ½
Maximum RPM Class I = 2908
Maximum RPM Class II = 3792
Maximum RPM Class III = 4100

CFM	OV	STATIC PRESSURE (in. wg)																			
		0.25		0.50		0.75		1.00		1.25		1.50		1.75		2.00		2.25		2.50	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1500	793	765	0.10	931	0.18	1077	0.26														
1800	952	842	0.14	1002	0.22	1133	0.32	1256	0.42	1365	0.53										
2100	1111	927	0.18	1076	0.28	1202	0.39	1313	0.49	1421	0.61	1519	0.74	1611	0.86						
2400	1269	1017	0.24	1153	0.35	1275	0.47	1382	0.58	1479	0.71	1575	0.84	1665	0.98	1749	1.12	1829	1.27		
2700	1428	1110	0.32	1233	0.43	1350	0.56	1455	0.69	1550	0.82	1636	0.96	1722	1.11	1805	1.26	1884	1.42	1959	1.58
3000	1587	1205	0.40	1321	0.53	1428	0.67	1530	0.81	1622	0.96	1708	1.10	1787	1.26	1863	1.41	1941	1.58	2015	1.75
3300	1746	1301	0.51	1410	0.65	1509	0.79	1606	0.94	1697	1.10	1780	1.26	1859	1.43	1933	1.59	2003	1.76	2072	1.94
3600	1904	1399	0.63	1502	0.78	1595	0.93	1685	1.10	1773	1.27	1855	1.44	1932	1.62	2005	1.79	2074	1.97	2140	2.16
3900	2063	1499	0.77	1596	0.94	1685	1.10	1767	1.27	1851	1.45	1931	1.63	2006	1.82	2078	2.02	2146	2.21	2211	2.40
4200	2222	1600	0.93	1690	1.11	1776	1.29	1855	1.47	1932	1.65	2008	1.85	2082	2.05	2153	2.25	2220	2.46	2284	2.67
4500	2380	1701	1.12	1786	1.31	1868	1.50	1945	1.69	2016	1.89	2089	2.09	2160	2.30	2229	2.51	2295	2.73	2358	2.95
4800	2539	1803	1.33	1883	1.54	1962	1.74	2035	1.94	2105	2.15	2171	2.35	2240	2.57	2306	2.80	2371	3.03	2433	3.26
5100	2698	1906	1.57	1982	1.79	2056	2.00	2127	2.22	2195	2.43	2259	2.65	2321	2.88	2386	3.11	2448	3.35	2509	3.59
5400	2857	2010	1.83	2081	2.07	2152	2.30	2221	2.52	2286	2.75	2348	2.98	2408	3.21	2467	3.45	2528	3.70	2587	3.95
5700	3015	2114	2.13	2182	2.38	2248	2.62	2315	2.86	2378	3.10	2439	3.34	2497	3.58	2553	3.83	2609	4.08	2667	4.34
6000	3174	2218	2.45	2283	2.71	2346	2.98	2410	3.23	2471	3.48	2530	3.73	2587	3.98	2642	4.24	2694	4.50	2748	4.77

CFM	OV	STATIC PRESSURE (in. wg)																			
		2.50		3.00		3.50		4.00		4.50		5.00		5.50		6.00		6.50		7.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
3000	1587	2015	1.75	2154	2.10	2282	2.46														
3280	1735	2068	1.92	2206	2.30	2334	2.68	2453	3.07												
3560	1883	2130	2.12	2260	2.50	2386	2.91	2505	3.32	2617	3.75	2724	4.18								
3840	2031	2197	2.35	2320	2.74	2440	3.15	2558	3.58	2669	4.03	2775	4.48	2876	4.95						
4120	2179	2264	2.59	2386	3.00	2499	3.42	2611	3.86	2722	4.33	2827	4.80	2927	5.29	3024	5.78	3116	6.28		
4400	2328	2333	2.85	2453	3.29	2565	3.73	2671	4.18	2775	4.65	2880	5.14	2980	5.64	3076	6.16	3168	6.68	3257	7.21
4680	2476	2403	3.13	2521	3.59	2632	4.05	2737	4.52	2836	5.00	2933	5.50	3033	6.02	3128	6.55	3220	7.09	3309	7.64
4960	2624	2474	3.43	2591	3.92	2700	4.40	2803	4.89	2902	5.39	2995	5.90	3086	6.41	3181	6.97	3273	7.53	3361	8.10
5240	2772	2545	3.75	2661	4.26	2769	4.77	2871	5.29	2969	5.81	3061	6.33	3150	6.87	3236	7.41	3326	7.98	3414	8.57
5520	2920	2619	4.10	2732	4.63	2839	5.16	2940	5.71	3036	6.25	3128	6.79	3217	7.35	3302	7.91	3384	8.48	3467	9.07
5800	3068	2694	4.48	2804	5.02	2909	5.58	3010	6.15	3105	6.72	3196	7.28	3284	7.86	3368	8.44	3449	9.03	3528	9.62
6080	3216	2770	4.89	2878	5.45	2981	6.02	3080	6.61	3174	7.20	3265	7.80	3351	8.40	3435	9.00	3516	9.61	3594	10.2
6360	3365	2851	5.33	2953	5.90	3053	6.49	3151	7.10	3244	7.72	3334	8.34	3420	8.96	3503	9.59	3583	10.2	3661	10.9
6640	3513	2933	5.81	3029	6.39	3128	7.00	3223	7.62	3315	8.26	3404	8.91	3489	9.56	3571	10.2	3651	10.9	3728	11.5
6920	3661	3016	6.32	3109	6.91	3203	7.54	3296	8.18	3387	8.83	3474	9.50	3559	10.2	3640	10.9	3719	11.5	3796	12.0
7200	3809	3100	6.86	3191	7.48	3279	8.11	3371	8.77	3459	9.44	3546	10.1	3629	10.8	3710	10.5	3788	12.2	3864	12.9

CFM	OV	STATIC PRESSURE (in. wg)																			
		7.00		7.50		8.00		8.50		9.00		10.00		11.00		12.00		13.00		14.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
4500	2380	3275	7.36	3361	7.90	3445	8.46														
4830	2555	3337	7.88	3422	8.45	3505	9.02	3585	9.61	3664	10.2										
5160	2730	3399	8.43	3484	9.02	3566	9.62	3646	10.2	3724	10.8	3875	12.1								
5490	2904	3462	9.02	3546	9.63	3628	10.3	3708	10.9	3786	11.5	3935	12.8	4078	14.1						
5820	3079	3533	9.67	3610	10.3	3691	10.9	3771	11.6	3848	12.2	3997	13.6								
6150	3253	3611	10.4	3686	11.0	3760	11.6	3834	12.3	3911	13.0	4059	14.4								
6480	3428	3689	11.1	3764	11.8	3837	12.4	3909	13.1	3978	13.8										
6810	3603	3769	11.9	3843	12.6	3916	13.3	3987	14.0	4055	14.7										
7140	3777	3850	12.8	3923	13.5	3995	14.2	4065	14.9												
7470	3952	3931	13.7	4004	14.4	4075	15.1														
7800	4126	4013	14.6	4086	15.4																
8130	4301	4096	15.6																		
8460	4476																				
8790	4650																				
9120	4825																				
9450	5000																				

Performance certified is for model BIDW Arrangement 3, Installation Type B: free inlet, ducted outlet.
Performance ratings do not include the effects of appurtenances (accessories).
Power rating (BHP) does not include transmission losses.



Class	Max RPM
I	2908
II	3792
III	4100

% WOV = (CFM X 100) / (RPM X 2.79)

Sound Power [dB Ref 10^{-12} watts]

Inlet Sound Power, L_{Wi}										
RPM	%WOV	1	2	3	4	5	6	7	8	L_{Wi}A
850	100	71	77	75	74	71	67	59	53	76
	80	71	76	75	74	71	66	59	53	75
	60	69	71	74	74	70	66	59	53	75
	50	70	71	74	74	70	66	59	53	75
	40	69	71	74	74	70	66	59	53	75
1200	100	76	80	81	77	74	72	67	59	80
	80	74	79	81	75	72	69	63	55	78
	60	73	76	76	74	71	68	63	55	76
	50	73	75	75	73	72	68	63	56	76
	40	74	75	74	73	72	69	63	56	76
1700	100	85	84	88	86	81	79	77	68	88
	80	83	81	86	85	79	75	71	63	85
	60	82	80	82	84	78	73	70	64	84
	50	84	83	81	84	78	73	71	66	84
	40	85	82	82	84	78	73	71	66	84
2400	100	94	96	93	98	94	89	89	88	99
	80	92	97	90	97	91	86	85	79	97
	60	91	94	88	93	89	84	82	78	94
	50	91	92	88	93	88	84	82	78	93
	40	91	91	88	92	88	84	82	79	93
3500	100	101	99	98	105	100	96	95	96	106
	80	98	96	95	102	97	92	91	88	103
	60	93	96	94	99	95	90	89	86	100
	50	94	98	95	98	94	90	89	86	100
	40	93	99	96	100	94	91	89	87	101
4100	100	103	103	102	107	105	100	98	99	109
	80	100	101	99	104	101	96	94	92	106
	60	96	99	98	101	99	94	92	90	103
	50	96	101	99	101	98	94	93	90	103
	40	96	102	101	103	99	95	93	90	104

Outlet Sound Power, L_{Wo}										
RPM	%WOV	1	2	3	4	5	6	7	8	L_{Wo}A
850	100	89	83	76	66	67	63	53	46	74
	80	87	79	76	65	67	61	52	45	72
	60	85	76	75	64	66	61	52	45	71
	50	87	76	75	64	66	61	52	45	71
	40	89	78	75	64	66	61	53	45	72
1200	100	95	83	83	74	73	72	64	54	80
	80	92	81	81	71	71	68	59	51	78
	60	91	80	81	69	71	66	59	52	76
	50	93	80	81	69	70	66	59	52	77
	40	96	81	81	69	71	66	60	53	77
1700	100	100	88	94	83	80	79	75	66	89
	80	97	87	91	81	78	76	69	60	86
	60	97	87	91	78	77	73	67	61	85
	50	99	86	88	78	77	73	68	62	83
	40	101	89	89	78	77	73	68	63	84
2400	100	105	95	95	96	89	88	85	81	97
	80	103	92	92	92	86	84	80	71	93
	60	103	91	90	91	84	81	76	71	91
	50	105	92	91	91	83	80	76	72	91
	40	105	95	92	91	83	81	76	72	91
3500	100	112	104	102	105	100	98	94	93	106
	80	111	101	99	102	97	95	90	86	103
	60	110	99	97	98	94	92	87	83	100
	50	110	102	98	98	93	91	87	83	100
	40	111	104	101	98	93	90	87	84	100
4100	100	115	109	106	108	104	101	98	97	110
	80	114	106	102	105	102	99	94	90	107
	60	113	105	101	101	98	95	91	87	103
	50	113	107	102	101	98	94	91	87	104
	40	114	109	105	102	97	94	91	88	104

The sound power level ratings shown are in decibels, referred to 10^{-12} watts calculated per AMCA Standard 301. Values shown are for inlet L_{Wi}, L_{Wi}A and outlet L_{Wo}, L_{Wo}A sound power levels for Installation Type B: free inlet, ducted outlet. Outlet ratings include the effects of duct end correction. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.

15 BIDW

Wheel Diameter = 15 in.
Outlet Area = 2.33 ft.^{2}
Tip Speed = 3.93 x RPM
Maximum BHP = (RPM/1368)^3

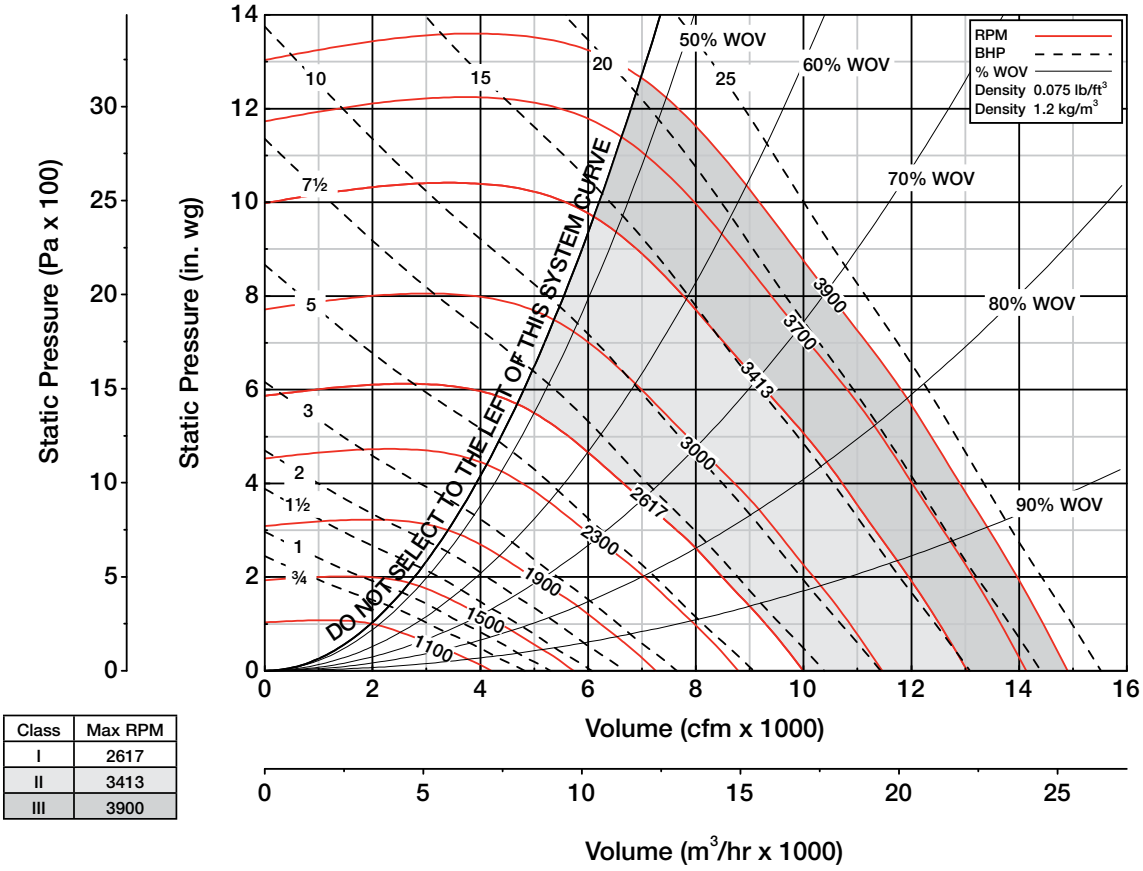
Minimum Starting HP = ½
Maximum RPM Class I = 2617
Maximum RPM Class II = 3413
Maximum RPM Class III = 3900

CFM	OV	STATIC PRESSURE (in. wg)																			
		0.25		0.50		0.75		1.00		1.25		1.50		1.75		2.00		2.25		2.50	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1900	815	697	0.13	846	0.22	976	0.33														
2260	969	766	0.17	908	0.28	1025	0.40	1136	0.53	1234	0.66										
2620	1124	840	0.23	973	0.35	1087	0.48	1185	0.62	1282	0.76	1371	0.92	1453	1.08						
2980	1278	919	0.30	1041	0.44	1151	0.58	1247	0.73	1334	0.88	1420	1.04	1501	1.22	1577	1.39	1648	1.57		
3340	1433	1000	0.39	1111	0.53	1217	0.69	1311	0.86	1396	1.02	1474	1.19	1551	1.37	1626	1.56	1697	1.75	1764	1.95
3700	1587	1083	0.50	1187	0.65	1284	0.82	1376	1.00	1459	1.18	1536	1.36	1608	1.55	1676	1.74	1746	1.95	1813	2.16
4060	1742	1167	0.62	1266	0.79	1355	0.97	1443	1.16	1524	1.35	1600	1.55	1670	1.75	1737	1.96	1800	2.16	1863	2.38
4420	1896	1253	0.77	1346	0.95	1430	1.14	1512	1.34	1591	1.55	1665	1.76	1734	1.98	1800	2.20	1862	2.42	1921	2.64
4780	2051	1340	0.94	1428	1.14	1509	1.34	1583	1.55	1659	1.77	1731	1.99	1799	2.23	1864	2.46	1925	2.70	1984	2.93
5140	2206	1428	1.13	1511	1.35	1588	1.56	1660	1.78	1729	2.01	1799	2.25	1866	2.50	1929	2.75	1990	3.00	2047	3.25
5500	2360	1517	1.35	1594	1.58	1668	1.81	1738	2.05	1803	2.28	1869	2.53	1933	2.79	1995	3.05	2055	3.32	2112	3.59
5860	2515	1606	1.59	1679	1.85	1750	2.09	1817	2.34	1880	2.59	1940	2.84	2003	3.12	2063	3.39	2121	3.67	2178	3.95
6220	2669	1696	1.87	1765	2.15	1833	2.41	1897	2.66	1958	2.93	2016	3.20	2074	3.47	2132	3.76	2189	4.05	2244	4.35
6580	2824	1786	2.18	1852	2.47	1916	2.75	1979	3.02	2038	3.30	2094	3.58	2148	3.87	2203	4.16	2258	4.46	2312	4.77
6940	2978	1877	2.53	1940	2.83	2000	3.13	2061	3.42	2118	3.71	2173	4.00	2226	4.30	2277	4.60	2329	4.91	2381	5.23
7300	3133	1969	2.91	2028	3.23	2085	3.55	2144	3.85	2199	4.15	2253	4.46	2304	4.77	2354	5.08	2402	5.40	2452	5.73

CFM	OV	STATIC PRESSURE (in. wg)																			
		2.50		3.00		3.50		4.00		4.50		5.00		5.50		6.00		6.50		7.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
3750	1609	1820	2.19	1945	2.62	2060	3.08														
4100	1759	1868	2.41	1993	2.87	2107	3.35	2215	3.84												
4450	1909	1926	2.66	2041	3.13	2155	3.63	2262	4.15	2363	4.68	2459	5.22								
4800	2060	1987	2.95	2098	3.43	2204	3.94	2310	4.48	2410	5.04	2505	5.60	2596	6.18						
5150	2210	2049	3.26	2158	3.77	2260	4.29	2358	4.83	2458	5.41	2553	6.00	2643	6.61	2730	7.22	2813	7.85		
5500	2360	2112	3.59	2220	4.13	2320	4.68	2415	5.23	2507	5.81	2601	6.43	2691	7.05	2777	7.69	2860	8.34	2940	9.00
5850	2510	2176	3.94	2282	4.52	2381	5.09	2475	5.67	2564	6.27	2650	6.87	2739	7.53	2825	8.19	2908	8.86	2988	9.55
6200	2660	2240	4.32	2345	4.93	2444	5.54	2536	6.15	2624	6.76	2709	7.39	2789	8.03	2874	8.71	2956	9.41	3035	10.1
6550	2811	2306	4.73	2410	5.36	2507	6.01	2598	6.65	2686	7.29	2769	7.95	2849	8.61	2926	9.28	3005	10.0	3084	10.7
6900	2961	2374	5.18	2475	5.83	2570	6.50	2661	7.18	2748	7.85	2830	8.53	2909	9.22	2986	9.92	3059	10.6	3132	11.4
7250	3111	2442	5.66	2540	6.33	2635	7.03	2725	7.73	2810	8.45	2892	9.15	2971	9.87	3046	10.6	3119	11.3	3190	12.1
7600	3261	2512	6.17	2608	6.88	2700	7.59	2789	8.32	2874	9.07	2955	9.81	3033	10.6	3108	11.3	3180	12.1	3250	12.8
7950	3412	2586	6.74	2677	7.45	2767	8.19	2854	8.95	2938	9.72	3018	10.5	3095	11.3	3170	12.1	3242	12.8	3311	13.6
8300	3562	2662	7.35	2746	8.07	2835	8.84	2920	9.61	3003	10.4	3082	11.2	3159	12.0	3232	12.8	3304	13.7	3373	14.5
8650	3712	2738	8.00	2821	8.75	2904	9.52	2987	10.3	3068	11.1	3147	12.0	3222	12.8	3296	13.7	3366	14.5	3435	15.4
9000	3862	2815	8.69	2896	9.47	2973	10.2	3056	11.1	3135	11.9	3212	12.8	3287	13.6	3359	14.5	3430	15.4	3498	16.3

CFM	OV	STATIC PRESSURE (in. wg)																			
		7.00		7.50		8.00		8.50		9.00		10.00		11.00		12.00		13.00		14.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
5700	2446	2967	9.31	3045	10.0	3119	10.7														
6120	2626	3024	10.0	3101	10.7	3176	11.4	3248	12.2	3319	12.9										
6540	2806	3082	10.7	3159	11.4	3233	12.2	3305	13.0	3375	13.7	3510	15.3	3639	16.9						
6960	2987	3141	11.5	3217	12.2	3291	13.0	3362	13.8	3432	14.6	3567	16.2	3695	17.9	3818	19.6				
7380	3167	3213	12.3	3281	13.1	3349	13.9	3420	14.7	3490	15.5	3624	17.2	3752	18.9	3874	20.7				
7800	3347	3285	13.3	3353	14.1	3419	14.9	3483	15.7	3548	16.5	3682	18.2	3809	20.0						
8220	3527	3359	14.3	3426	15.1	3491	15.9	3555	16.7	3617	17.6	3740	19.3	3867	21.0						
8640	3708	3433	15.3	3500	16.2	3565	17.0	3628	17.9	3690	18.8	3809	20.5								
9060	3888	3509	16.4	3575	17.3	3639	18.2	3701	19.1	3763	20.0	3881	21.8								
9480	4068	3585	17.6	3650	18.5	3714	19.5	3776	20.4	3837	21.3										
9900	4248	3661	18.8	3726	19.8	3790	20.7	3851	21.7												
10320	4429	3739	20.1	3803	21.1	3866	22.1														
10740	4609	3818	21.4	3881	22.5																
11160	4789	3897	22.9																		
11580	4969																				
12000	5150																				

Performance certified is for model BIDW Arrangement 3, Installation Type B: free inlet, ducted outlet.
Performance ratings do not include the effects of appurtenances (accessories).
Power rating (BHP) does not include transmission losses.



Class	Max RPM
I	2617
II	3413
III	3900

% WOV = (CFM X 100) / (RPM X 3.82)

Sound Power [dB Ref 10^{-12} watts]

RPM	%WOV	Inlet Sound Power, L_{Wi} 1	2	3	4	5	6	7	8	L_{Wi}A
800	100	74	79	77	76	73	68	61	55	78
	80	74	79	77	76	72	68	60	54	77
	60	72	73	76	76	72	67	60	54	77
	50	73	73	77	76	72	67	60	54	77
	40	72	74	76	75	72	67	60	54	77
1100	100	78	82	82	78	75	73	67	59	81
	80	76	81	81	76	73	70	63	55	79
	60	75	78	77	75	72	69	63	56	77
	50	75	78	76	75	72	69	64	56	77
	40	76	78	75	75	73	69	64	56	77
1600	100	87	87	90	88	83	80	78	70	89
	80	85	84	88	86	80	77	72	64	87
	60	84	82	84	86	79	75	71	66	86
	50	86	85	84	85	79	75	72	67	85
	40	87	84	84	85	80	75	72	67	86
2200	100	96	97	95	99	94	91	90	89	100
	80	95	97	93	98	92	87	86	80	98
	60	93	94	90	94	89	85	83	78	95
	50	92	93	90	93	89	85	83	79	94
	40	93	92	90	93	89	85	83	79	94
3100	100	101	99	99	105	100	96	96	97	106
	80	98	96	97	103	97	93	91	88	103
	60	94	96	95	99	94	91	89	86	100
	50	95	98	96	99	94	91	89	87	100
	40	95	99	97	100	94	91	90	87	101
3900	100	106	106	104	109	106	102	101	101	111
	80	103	103	102	106	103	98	96	94	108
	60	99	102	101	103	101	96	94	92	105
	50	99	104	102	103	100	96	94	92	105
	40	99	104	103	105	101	97	95	92	106

RPM	%WOV	Outlet Sound Power, L_{Wo} 1	2	3	4	5	6	7	8	L_{Wo}A
800	100	91	85	77	67	70	65	54	47	75
	80	90	81	77	65	69	63	53	46	74
	60	87	77	76	64	68	62	53	46	73
	50	89	78	76	65	69	62	54	47	73
	40	91	80	76	65	69	62	54	47	74
1100	100	94	84	83	75	74	72	64	54	80
	80	92	83	81	73	72	68	59	51	78
	60	91	82	80	71	71	66	59	52	77
	50	93	82	81	70	71	66	60	53	77
	40	95	83	81	70	71	66	60	53	78
1600	100	101	91	95	84	82	81	76	67	90
	80	98	89	93	82	80	77	70	61	87
	60	98	89	92	80	78	74	69	63	86
	50	100	88	89	79	78	74	69	64	85
	40	102	91	90	80	78	74	69	64	86
2200	100	105	97	96	96	90	89	86	82	97
	80	103	94	93	93	87	85	80	72	94
	60	103	92	91	91	85	82	77	72	92
	50	104	94	92	92	84	81	77	73	92
	40	105	96	93	91	84	81	77	73	92
3100	100	112	104	103	106	100	98	95	94	106
	80	111	101	100	102	97	95	90	86	103
	60	109	99	98	98	94	91	87	83	100
	50	110	101	99	98	93	91	87	83	100
	40	111	104	101	98	93	90	87	84	100
3900	100	117	111	108	110	106	103	100	99	112
	80	116	108	105	107	103	101	96	92	109
	60	114	106	103	103	100	97	93	89	105
	50	115	108	104	103	99	96	93	89	105
	40	116	111	106	103	99	96	93	89	106

The sound power level ratings shown are in decibels, referred to 10^{-12} watts calculated per AMCA Standard 301. Values shown are for inlet L_{Wi}, L_{Wi}A and outlet L_{Wo}, L_{Wo}A sound power levels for Installation Type B: free inlet, ducted outlet. Outlet ratings include the effects of duct end correction. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.

16 BIDW

Wheel Diameter = 16½ in.
Outlet Area = 2.82 ft.^{2}
Tip Speed = 4.32 x RPM
Maximum BHP = (RPM/1167)^3

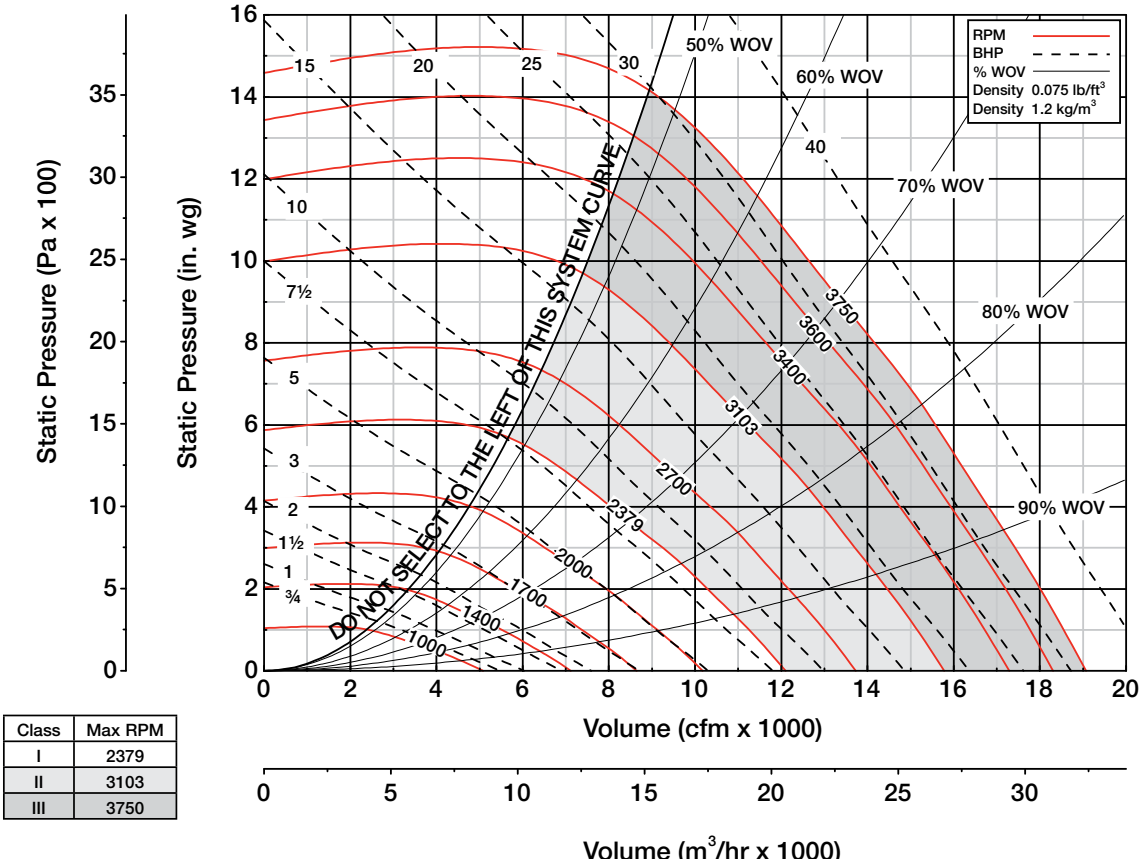
Minimum Starting HP = ½
Maximum RPM Class I = 2379
Maximum RPM Class II = 3103
Maximum RPM Class III = 3750

CFM	OV	STATIC PRESSURE (in. wg)																			
		0.25		0.50		0.75		1.00		1.25		1.50		1.75		2.00		2.25		2.50	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
2550	904	669	0.19	801	0.31	913	0.45	1014	0.60												
2980	1056	733	0.25	859	0.39	963	0.54	1058	0.70	1146	0.87	1227	1.05								
3410	1209	803	0.33	918	0.48	1020	0.65	1108	0.82	1191	1.00	1271	1.19	1345	1.39	1414	1.60				
3840	1361	875	0.42	980	0.59	1078	0.77	1165	0.96	1243	1.15	1315	1.35	1389	1.57	1457	1.79	1522	2.02	1584	2.25
4270	1514	949	0.54	1046	0.72	1138	0.92	1223	1.12	1299	1.33	1369	1.55	1435	1.76	1502	2.00	1566	2.24	1627	2.49
4700	1666	1024	0.68	1116	0.87	1200	1.08	1282	1.30	1357	1.53	1426	1.76	1491	2.00	1552	2.24	1611	2.48	1671	2.75
5130	1819	1100	0.84	1187	1.05	1265	1.27	1343	1.51	1416	1.75	1484	2.01	1547	2.26	1607	2.51	1664	2.77	1719	3.03
5560	1971	1178	1.02	1260	1.26	1335	1.49	1406	1.74	1476	2.00	1543	2.27	1605	2.54	1664	2.81	1721	3.09	1774	3.36
5990	2124	1256	1.24	1334	1.49	1406	1.74	1472	2.00	1539	2.27	1603	2.56	1664	2.85	1722	3.14	1778	3.43	1831	3.73
6420	2276	1336	1.48	1408	1.76	1477	2.03	1541	2.30	1602	2.58	1665	2.88	1724	3.18	1781	3.49	1836	3.80	1888	4.12
6850	2429	1416	1.76	1484	2.06	1550	2.34	1612	2.63	1670	2.92	1728	3.23	1786	3.55	1842	3.87	1895	4.20	1947	4.54
7280	2581	1496	2.07	1560	2.39	1624	2.69	1684	3.00	1740	3.31	1794	3.62	1849	3.95	1903	4.29	1955	4.64	2006	4.99
7710	2734	1577	2.42	1638	2.76	1698	3.08	1756	3.40	1811	3.73	1863	4.06	1913	4.39	1966	4.75	2017	5.11	2066	5.47
8140	2886	1658	2.81	1716	3.16	1773	3.51	1829	3.85	1882	4.19	1933	4.54	1982	4.89	2030	5.24	2080	5.62	2128	6.00
8570	3039	1740	3.23	1795	3.61	1849	3.98	1903	4.34	1955	4.69	2004	5.06	2052	5.42	2098	5.79	2143	6.17	2191	6.57
9000	3191	1822	3.71	1874	4.10	1926	4.49	1978	4.87	2028	5.24	2076	5.62	2122	6.00	2167	6.39	2210	6.78	2254	7.18

CFM	OV	STATIC PRESSURE (in. wg)																			
		2.50		3.00		3.50		4.00		4.50		5.00		5.50		6.00		6.50		7.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
4550	1613	1656	2.65	1769	3.18	1874	3.73														
4980	1765	1701	2.93	1813	3.49	1918	4.07	2015	4.66												
5410	1918	1755	3.25	1858	3.81	1962	4.42	2059	5.05	2151	5.69	2238	6.34								
5840	2070	1811	3.60	1911	4.19	2007	4.80	2103	5.46	2194	6.13	2281	6.81	2363	7.52	2443	8.23				
6270	2223	1868	3.98	1967	4.60	2059	5.23	2148	5.89	2239	6.59	2325	7.31	2407	8.04	2486	8.79	2562	9.55		
6700	2375	1926	4.39	2024	5.05	2115	5.71	2201	6.39	2284	7.09	2369	7.84	2451	8.60	2530	9.37	2605	10.2	2678	11.0
7130	2528	1985	4.83	2082	5.53	2172	6.23	2257	6.94	2338	7.66	2415	8.39	2496	9.18	2574	10.0	2649	10.8	2721	11.6
7560	2680	2045	5.30	2140	6.03	2229	6.78	2314	7.52	2394	8.27	2470	9.04	2543	9.81	2619	10.6	2693	11.5	2766	12.4
7990	2833	2106	5.81	2200	6.58	2288	7.36	2371	8.14	2450	8.93	2526	9.72	2599	10.5	2668	11.4	2738	12.2	2810	13.1
8420	2985	2169	6.36	2260	7.16	2347	7.97	2429	8.80	2508	9.62	2583	10.5	2655	11.3	2724	12.1	2791	13.0	2856	13.9
8850	3138	2232	6.96	2321	7.78	2407	8.63	2488	9.49	2566	10.4	2640	11.2	2711	12.1	2780	13.0	2846	13.9	2911	14.8
9280	3290	2297	7.60	2384	8.46	2467	9.33	2547	10.2	2624	11.1	2698	12.0	2768	12.9	2837	13.9	2902	14.8	2966	15.7
9710	3443	2366	8.31	2447	9.17	2529	10.1	2608	11.0	2684	11.9	2756	12.9	2826	13.8	2894	14.8	2959	15.7	3022	16.7
10140	3595	2436	9.07	2512	10.0	2592	10.9	2669	11.8	2744	12.8	2816	13.8	2885	14.8	2952	15.8	3017	16.8	3079	17.8
10570	3748	2506	9.88	2581	10.8	2656	11.7	2731	12.7	2804	13.7	2875	14.7	2944	15.7	3010	16.8	3075	17.8	3137	18.9
11000	3900	2577	10.7	2651	11.7	2721	12.6	2795	13.6	2866	14.7	2936	15.7	3004	16.8	3069	17.8	3133	18.9	3195	20.0

CFM	OV	STATIC PRESSURE (in. wg)																			
		7.00		7.50		8.00		8.50		9.00		10.00		11.00		12.00		13.00		14.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
7000	2482	2708	11.4	2778	12.3	2846	13.1	2912	14.0												
7500	2659	2759	12.2	2829	13.1	2897	14.0	2963	14.9	3027	15.8										
8000	2836	2811	13.1	2881	14.0	2948	14.9	3013	15.9	3077	16.8	3200	18.7	3317	20.6						
8500	3014	2866	14.0	2933	15.0	3000	15.9	3065	16.9	3128	17.8	3250	19.8	3367	21.8	3479	23.9				
9000	3191	2930	15.1	2992	16.0	3053	16.9	3117	17.9	3180	18.9	3302	21.0	3418	23.1	3529	25.2	3636	27.4	3739	29.6
9500	3368	2995	16.2	3057	17.2	3117	18.1	3175	19.1	3233	20.1	3354	22.2	3469	24.4	3580	26.6	3687	28.8		
10000	3546	3061	17.4	3122	18.4	3181	19.4	3239	20.4	3296	21.4	3406	23.5	3521	25.7	3632	28.0	3738	30.3		
10500	3723	3127	18.7	3188	19.7	3247	20.7	3304	21.8	3360	22.8	3469	25.0	3574	27.2	3684	29.5				
11000	3900	3195	20.0	3255	21.1	3313	22.1	3370	23.2	3426	24.3	3533	26.5	3637	28.8	3736	31.0				
11500	4078	3263	21.4	3322	22.5	3380	23.6	3437	24.8	3492	25.9	3599	28.2	3701	30.5						
12000	4255	3332	22.8	3391	24.0	3448	25.2	3504	26.4	3559	27.5	3665	29.9								
12500	4432	3401	24.4	3460	25.6	3517	26.8	3572	28.0	3626	29.2	3731	31.7								
13000	4609	3472	26.0	3529	27.2	3586	28.5	3641	29.7	3694	31.0										
13500	4787	3543	27.7	3600	29.0	3655	30.2	3710	31.6												
14000	4964	3616	29.5	3671	30.8	3726	32.1														
14500	5141	3689	31.4	3744	32.7																

Performance certified is for model BIDW Arrangement 3, Installation Type B: free inlet, ducted outlet.
Performance ratings do not include the effects of appurtenances (accessories).
Power rating (BHP) does not include transmission losses.



Class	Max RPM
I	2379
II	3103
III	3750

% WOV = (CFM X 100) / (RPM X 5.09)

Sound Power [dB Ref 10^{-12} watts]

RPM	%WOV	Inlet Sound Power, L_{Wi} 1	2	3	4	5	6	7	8	L_{Wi}A
700	100	75	79	76	75	72	67	59	53	77
	80	74	79	76	75	71	66	59	53	76
	60	72	74	76	75	71	66	59	53	76
	50	73	74	76	75	71	66	59	53	76
	40	72	74	76	75	71	66	59	53	76
1000	100	79	84	83	79	75	73	67	59	81
	80	77	83	81	76	73	70	63	55	79
	60	76	80	77	75	73	69	63	55	78
	50	76	79	77	75	73	69	63	56	78
	40	77	80	76	75	73	69	63	56	78
1400	100	87	87	89	87	82	80	77	68	89
	80	84	85	88	85	79	76	71	63	86
	60	83	83	85	84	78	74	70	65	85
	50	86	85	84	84	78	74	71	66	85
	40	86	84	84	84	79	74	71	66	85
2000	100	97	97	97	99	95	91	91	89	101
	80	96	97	95	98	92	88	86	80	98
	60	94	94	92	94	90	86	83	79	95
	50	93	93	92	94	89	85	83	79	95
	40	94	93	91	93	89	85	83	80	95
2800	100	101	100	101	105	100	97	97	97	106
	80	99	97	98	103	97	93	91	88	103
	60	95	97	97	99	94	91	89	86	100
	50	96	98	97	99	94	91	90	87	100
	40	96	100	98	100	94	91	90	87	101
3750	100	109	108	106	112	108	104	103	103	113
	80	106	105	104	109	105	100	98	96	110
	60	102	105	103	106	102	98	96	94	108
	50	102	106	104	106	102	98	97	94	107
	40	102	107	105	107	103	99	97	94	108

RPM	%WOV	Outlet Sound Power, L_{Wo} 1	2	3	4	5	6	7	8	L_{Wo}A
700	100	90	83	75	68	69	63	53	46	74
	80	88	80	75	66	68	61	52	45	73
	60	85	77	74	65	67	61	52	45	72
	50	87	78	74	65	67	61	52	45	72
	40	89	79	74	66	67	61	52	45	72
1000	100	93	85	83	76	75	72	64	53	80
	80	92	84	81	74	72	68	59	51	78
	60	90	83	80	72	71	66	59	52	77
	50	92	83	80	71	71	66	60	53	77
	40	94	84	80	71	71	66	60	53	77
1400	100	99	92	93	84	82	80	75	66	89
	80	96	90	90	82	79	76	69	59	86
	60	96	90	89	80	77	73	68	62	85
	50	97	88	87	79	77	73	68	63	84
	40	99	91	88	79	78	73	68	63	84
2000	100	105	97	97	96	91	89	86	82	98
	80	102	95	94	93	88	85	80	71	94
	60	102	93	92	91	85	82	77	72	92
	50	103	94	93	91	85	81	77	73	92
	40	104	96	93	91	85	82	77	73	92
2800	100	111	104	104	105	100	98	95	94	107
	80	110	101	101	102	98	95	90	86	103
	60	108	99	99	98	94	91	87	83	100
	50	109	102	99	98	94	91	87	83	100
	40	111	104	101	98	93	91	87	84	100
3750	100	119	112	110	112	108	106	102	101	114
	80	118	110	107	109	105	103	98	94	111
	60	117	108	105	105	102	99	95	91	107
	50	117	110	106	105	101	98	95	91	107
	40	118	113	108	105	101	98	95	91	108

The sound power level ratings shown are in decibels, referred to 10^{-12} watts calculated per AMCA Standard 301. Values shown are for inlet L_{Wi}, L_{Wi}A and outlet L_{Wo}, L_{Wo}A sound power levels for Installation Type B: free inlet, ducted outlet. Outlet ratings include the effects of duct end correction. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.

18 BIDW

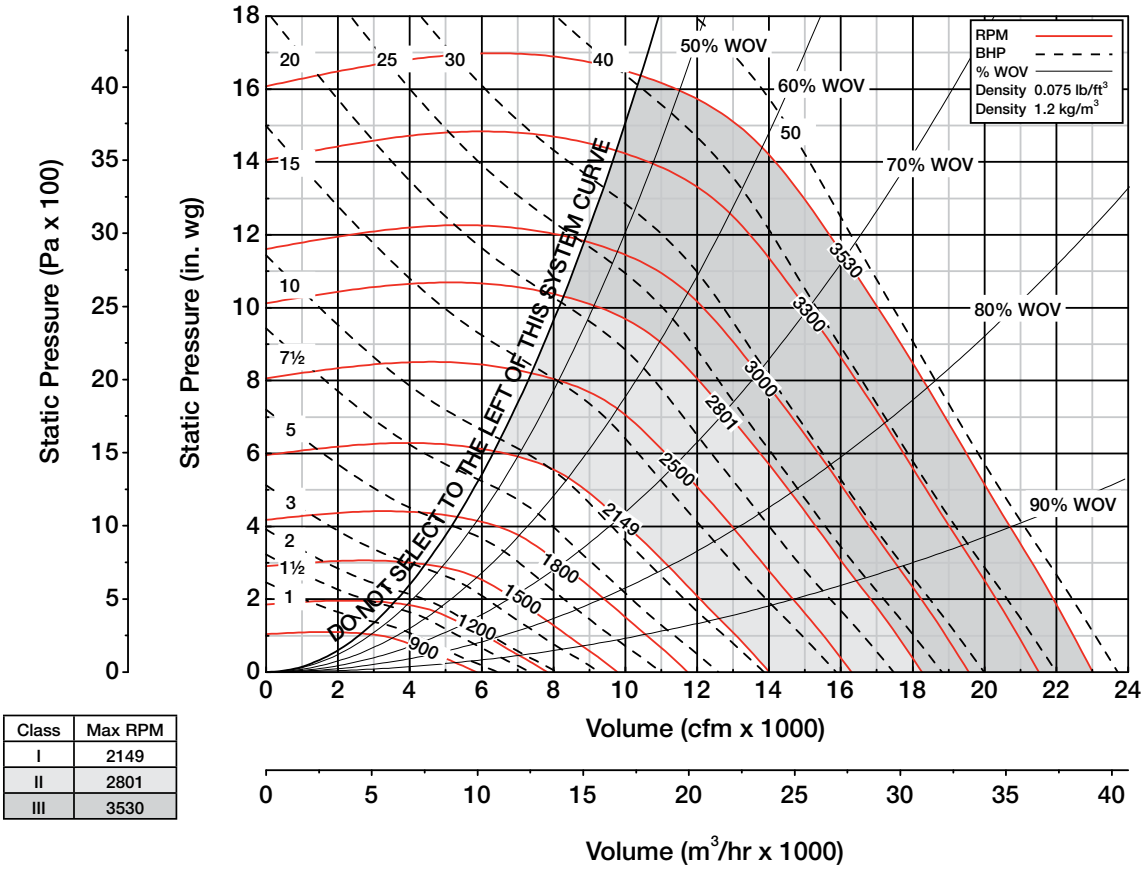
Wheel Diameter = 18¼ in.	Minimum Starting HP = ¾
Outlet Area = 3.45 ft.^{2}	Maximum RPM Class I = 2149
Tip Speed = 4.78 x RPM	Maximum RPM Class II = 2801
Maximum BHP = (RPM/970)^3	Maximum RPM Class III = 3530

CFM	OV	STATIC PRESSURE (in. wg)																			
		0.25		0.50		0.75		1.00		1.25		1.50		1.75		2.00		2.25		2.50	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
3000	869	595	0.23	700	0.36	796	0.51	892	0.69	980	0.89										
3600	1043	670	0.33	765	0.49	850	0.65	928	0.82	1012	1.03	1088	1.25	1161	1.48						
4200	1217	749	0.46	836	0.64	913	0.82	986	1.01	1052	1.21	1124	1.44	1194	1.69	1259	1.94	1320	2.20	1386	2.49
4800	1391	831	0.63	911	0.83	983	1.03	1049	1.25	1113	1.46	1172	1.69	1230	1.92	1295	2.19	1356	2.48	1414	2.77
5400	1565	913	0.83	988	1.06	1055	1.29	1118	1.52	1177	1.76	1234	2.00	1288	2.25	1340	2.50	1392	2.77	1450	3.08
6000	1739	997	1.07	1068	1.33	1131	1.59	1190	1.84	1246	2.10	1299	2.37	1350	2.63	1400	2.91	1448	3.19	1494	3.47
6600	1913	1082	1.36	1149	1.66	1209	1.94	1265	2.22	1317	2.50	1368	2.78	1417	3.07	1463	3.37	1509	3.67	1554	3.97
7200	2086	1168	1.71	1231	2.03	1288	2.34	1341	2.65	1391	2.95	1439	3.26	1486	3.57	1531	3.89	1574	4.20	1616	4.53
7800	2260	1255	2.11	1314	2.46	1369	2.80	1419	3.13	1467	3.47	1513	3.80	1557	4.13	1601	4.47	1643	4.81	1683	5.15
8400	2434	1343	2.58	1398	2.95	1451	3.33	1499	3.69	1545	4.04	1589	4.40	1631	4.76	1672	5.12	1713	5.48	1752	5.84
9000	2608	1432	3.12	1483	3.51	1533	3.91	1580	4.31	1624	4.69	1666	5.08	1707	5.46	1747	5.84	1785	6.22	1823	6.61
9600	2782	1521	3.73	1569	4.14	1616	4.57	1662	5.00	1704	5.41	1745	5.82	1784	6.23	1822	6.64	1859	7.04	1895	7.45
10200	2956	1610	4.41	1655	4.85	1700	5.30	1744	5.76	1785	6.21	1824	6.64	1862	7.08	1899	7.52	1935	7.95	1970	8.38
10800	3130	1700	5.18	1742	5.64	1785	6.12	1827	6.60	1867	7.09	1905	7.55	1942	8.01	1977	8.47	2012	8.94	2046	9.39
11400	3304	1790	6.04	1830	6.52	1870	7.02	1910	7.53	1949	8.05	1986	8.55	2022	9.04	2057	9.52	2090	10.0	2123	10.5
12000	3478	1880	6.99	1918	7.50	1956	8.02	1995	8.55	2032	9.09	2068	9.63	2103	10.2	2137	10.7	2169	11.2	2201	11.7

CFM	OV	STATIC PRESSURE (in. wg)																			
		2.50		3.00		3.50		4.00		4.50		5.00		5.50		6.00		6.50		7.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
6000	1739	1494	3.47	1593	4.11	1692	4.82	1784	5.54	1871	6.29	1961	7.10								
6600	1913	1554	3.97	1639	4.58	1728	5.27	1820	6.04	1906	6.83	1988	7.64	2066	8.46	2149	9.36	2231	10.3		
7200	2086	1616	4.53	1700	5.19	1778	5.86	1856	6.57	1942	7.41	2024	8.25	2102	9.12	2176	10.0	2248	10.9	2323	11.9
7800	2260	1683	5.15	1762	5.85	1838	6.56	1911	7.29	1980	8.02	2060	8.91	2138	9.81	2212	10.7	2283	11.7	2352	12.6
8400	2434	1752	5.84	1827	6.58	1900	7.34	1972	8.10	2040	8.88	2105	9.67	2174	10.6	2248	11.5	2319	12.5	2388	13.5
9000	2608	1823	6.61	1896	7.39	1965	8.18	2033	8.99	2101	9.82	2165	10.7	2226	11.5	2286	12.3	2355	13.4	2424	14.4
9600	2782	1895	7.45	1966	8.28	2034	9.12	2099	9.96	2162	10.8	2226	11.7	2287	12.6	2345	13.5	2402	14.4	2460	15.3
10200	2956	1970	8.38	2037	9.25	2104	10.1	2167	11.0	2228	11.9	2288	12.8	2348	13.8	2406	14.7	2462	15.7	2516	16.6
10800	3130	2046	9.39	2111	10.3	2174	11.2	2237	12.2	2297	13.1	2354	14.1	2410	15.0	2468	16.0	2523	17.0	2577	18.0
11400	3304	2123	10.5	2187	11.5	2248	12.4	2307	13.4	2366	14.4	2423	15.4	2477	16.4	2530	17.4	2585	18.4	2638	19.5
12000	3478	2201	11.7	2263	12.7	2322	13.7	2380	14.7	2437	15.8	2492	16.8	2546	17.9	2598	18.9	2649	20.0	2700	21.1
12600	3652	2280	13.0	2340	14.1	2398	15.1	2454	16.2	2508	17.3	2563	18.4	2616	19.4	2667	20.5	2717	21.7	2765	22.8
13200	3826	2360	14.4	2418	15.5	2475	16.6	2530	17.7	2583	18.9	2634	20.0	2686	21.1	2736	22.3	2786	23.4	2834	24.6
13800	4000	2440	15.9	2497	17.1	2552	18.2	2606	19.4	2658	20.6	2708	21.7	2757	22.9	2807	24.1	2855	25.3	2903	26.5
14400	4173	2521	17.5	2577	18.7	2631	19.9	2683	21.2	2734	22.4	2783	23.6	2831	24.8	2878	26.1	2926	27.3	2972	28.6
15000	4347	2603	19.2	2658	20.5	2710	21.8	2761	23.1	2810	24.3	2859	25.6	2906	26.9	2952	28.2	2997	29.4	3043	30.7

CFM	OV	STATIC PRESSURE (in. wg)																			
		7.00		7.50		8.00		8.50		9.00		10.00		11.00		12.00		13.00		14.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
8000	2318	2364	12.9	2430	13.9	2495	14.9	2561	16.0	2630	17.1										
8700	2521	2406	13.9	2472	15.0	2536	16.0	2598	17.1	2659	18.2	2779	20.4	2905	22.8						
9400	2724	2448	15.0	2514	16.1	2578	17.2	2640	18.3	2700	19.4	2816	21.7	2926	24.1	3041	26.6	3156	29.2		
10100	2927	2506	16.4	2559	17.3	2620	18.4	2682	19.6	2742	20.8	2858	23.2	2968	25.6	3073	28.1	3174	30.4	3283	33.4
10800	3130	2577	18.0	2629	19.0	2680	20.0	2729	21.0	2784	22.2	2900	24.7	3009	27.2	3115	29.8	3216	32.4	3313	35.1
11500	3333	2648	19.7	2700	20.8	2750	21.9	2799	22.9	2847	24.0	2942	26.3	3052	28.9	3156	31.6	3257	34.3	3354	37.1
12200	3536	2721	21.6	2772	22.7	2821	23.8	2870	25.0	2917	26.1	3009	28.4	3096	30.7	3199	33.4	3299	36.3	3396	39.1
12900	3739	2799	23.7	2846	24.8	2894	26.0	2942	27.1	2989	28.3	3079	30.7	3166	33.0	3250	35.5	3342	38.3	3438	41.3
13600	3942	2879	25.9	2926	27.1	2971	28.3	3015	29.5	3061	30.7	3150	33.2	3236	35.7	3319	38.2	3399	40.8	3481	43.5
14300	4144	2961	28.2	3006	29.5	3051	30.7	3094	32.0	3137	33.2	3223	35.8	3308	38.4	3390	41.1	3469	43.7		
15000	4347	3043	30.7	3088	32.0	3132	33.3	3175	34.7	3217	36.0	3298	38.6	3380	41.3	3462	44.1				
15700	4550	3127	33.4	3170	34.8	3214	36.1	3256	37.5	3297	38.9	3378	41.6	3456	44.4						
16400	4753	3213	36.3	3255	37.7	3296	39.1	3338	40.5	3379	42.0	3458	44.8								
17100	4956	3301	39.4	3342	40.9	3382	42.3	3421	43.8	3461	45.3										
17800	5159	3389	42.7	3429	44.2	3469	45.7	3507	47.2												
18500	5362	3478	46.2	3518	47.7																

Performance certified is for model BIDW Arrangement 3, Installation Type B: free inlet, ducted outlet.
Performance ratings do not include the effects of appurtenances (accessories).
Power rating (BHP) does not include transmission losses.



Class	Max RPM
I	2149
II	2801
III	3530

% WOV = (CFM X 100) / (RPM X 6.52)

Sound Power [dB Ref 10^{-12} watts]

Inlet Sound Power, L_{Wi}

RPM	%WOV	1	2	3	4	5	6	7	8	L_{Wi}A
600	100	76	75	74	76	68	62	56	51	75
	80	74	73	71	74	67	60	54	50	73
	60	73	70	69	74	67	60	54	50	73
	50	72	70	69	74	67	60	54	50	73
	40	72	70	68	75	67	60	54	50	74
900	100	78	89	84	82	77	72	65	60	83
	80	78	87	82	78	72	68	60	54	80
	60	75	82	77	77	72	67	60	55	78
	50	74	79	75	76	72	67	61	56	77
	40	76	78	74	76	72	67	61	56	77
1200	100	83	90	90	89	84	81	74	69	90
	80	82	86	87	87	80	77	69	65	87
	60	82	82	82	83	79	76	69	65	84
	50	78	81	80	82	78	75	69	65	83
	40	78	82	80	82	78	75	70	66	83
1700	100	89	91	97	94	90	88	82	77	96
	80	86	89	94	92	89	85	79	74	94
	60	86	85	92	88	85	82	76	73	90
	50	85	85	89	87	84	81	77	74	89
	40	87	86	89	86	84	81	77	74	89
2500	100	97	99	102	107	99	96	92	88	106
	80	95	97	99	104	96	93	88	85	103
	60	92	92	98	99	94	91	87	85	100
	50	93	92	98	98	93	91	87	85	99
	40	95	94	98	99	92	91	89	87	100
3530	100	103	107	109	112	110	105	102	98	114
	80	101	105	106	110	108	102	98	94	111
	60	98	101	103	106	104	100	97	93	108
	50	99	102	104	105	103	99	96	93	108
	40	101	104	105	105	103	99	97	95	108

Outlet Sound Power, L_{Wo}

RPM	%WOV	1	2	3	4	5	6	7	8	L_{Wo}A
600	100	89	80	74	68	66	59	52	47	72
	80	89	79	71	64	63	54	47	44	70
	60	81	75	68	62	61	54	47	45	67
	50	80	74	67	62	62	54	48	45	66
	40	81	74	67	63	62	54	48	45	67
900	100	93	95	85	78	77	71	64	58	84
	80	89	92	83	74	72	65	58	53	80
	60	86	84	77	73	69	64	58	54	76
	50	86	82	75	72	69	63	58	54	75
	40	88	83	75	71	68	63	58	55	74
1200	100	100	92	90	85	85	80	74	67	89
	80	95	90	88	82	81	74	67	61	86
	60	91	86	83	77	77	71	65	61	81
	50	91	85	82	76	76	71	65	61	80
	40	92	85	80	75	75	70	65	62	80
1700	100	104	96	97	92	92	88	84	76	96
	80	102	93	95	90	91	86	80	73	94
	60	99	90	92	86	86	82	76	71	91
	50	99	91	91	85	85	80	75	71	89
	40	100	91	91	84	83	80	75	71	89
2500	100	110	105	104	111	103	98	94	89	110
	80	107	102	100	106	99	94	90	84	106
	60	104	97	96	99	96	92	87	82	101
	50	105	98	95	98	94	90	86	82	99
	40	108	101	96	95	93	89	86	82	98
3530	100	116	115	112	116	114	108	104	99	118
	80	113	112	108	112	110	104	99	94	114
	60	110	108	104	105	105	102	97	92	109
	50	111	109	104	104	103	100	96	92	108
	40	114	113	106	102	102	99	95	91	107

The sound power level ratings shown are in decibels, referred to 10^{-12} watts calculated per AMCA Standard 301. Values shown are for inlet L_{Wi}, L_{Wi}A and outlet L_{Wo}, L_{Wo}A sound power levels for Installation Type B: free inlet, ducted outlet. Outlet ratings include the effects of duct end correction. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.

20 BIDW

Wheel Diameter = 20 in.
Outlet Area = 4.14 ft.^{2}
Tip Speed = 5.24 x RPM
Maximum BHP = (RPM/832)^3

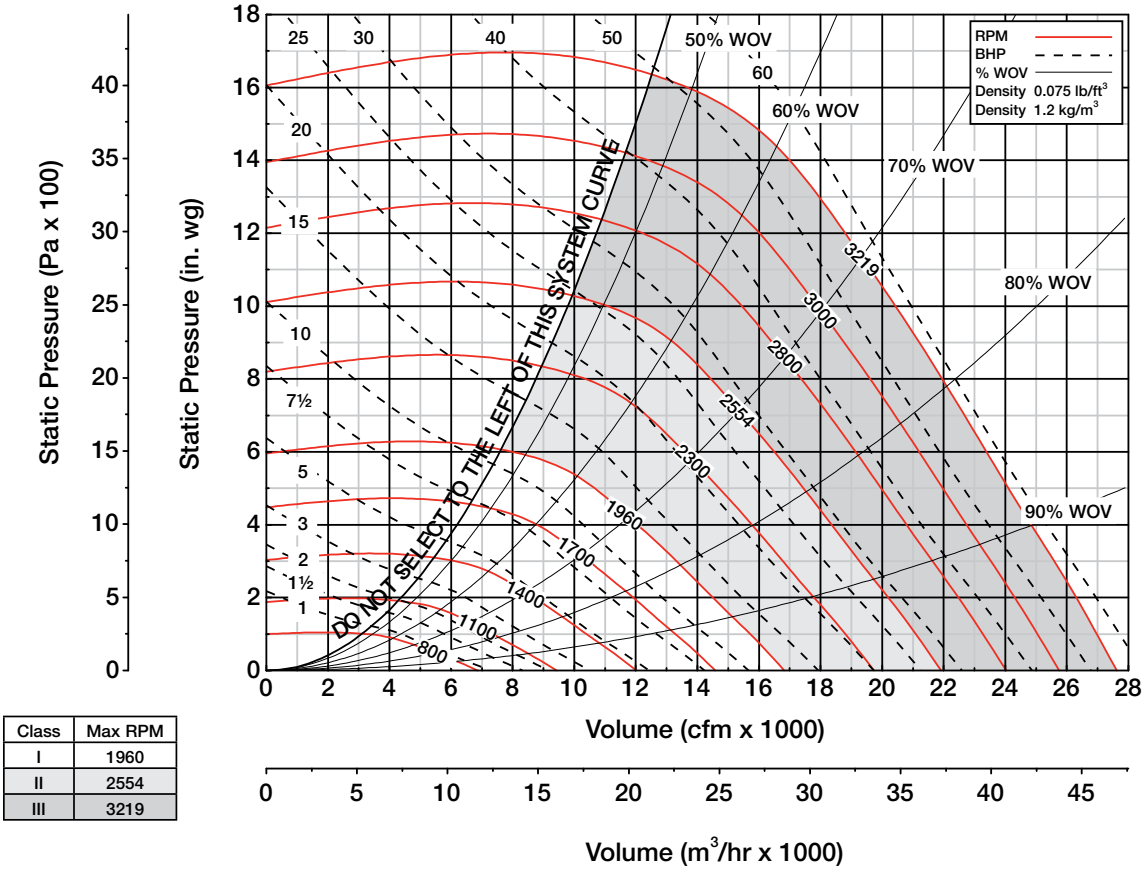
Minimum Starting HP = ¾
Maximum RPM Class I = 1960
Maximum RPM Class II = 2554
Maximum RPM Class III = 3219

CFM	OV	STATIC PRESSURE (in. wg)																			
		0.25		0.50		0.75		1.00		1.25		1.50		1.75		2.00		2.25		2.50	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
3000	724	489	0.20	596	0.34	699	0.52														
3800	917	561	0.31	654	0.47	736	0.65	823	0.87	900	1.11	977	1.37								
4600	1111	639	0.45	723	0.65	797	0.85	865	1.07	936	1.31	1005	1.59	1069	1.87	1132	2.17				
5400	1304	720	0.65	796	0.87	864	1.11	927	1.35	987	1.60	1042	1.85	1105	2.16	1165	2.48	1221	2.81	1274	3.14
6200	1497	803	0.89	874	1.16	936	1.42	995	1.69	1050	1.96	1103	2.25	1154	2.54	1201	2.83	1257	3.19	1310	3.55
7000	1690	888	1.19	954	1.50	1012	1.80	1066	2.10	1119	2.40	1167	2.71	1215	3.03	1262	3.35	1306	3.67	1348	4.00
7800	1884	974	1.57	1035	1.92	1090	2.25	1142	2.58	1190	2.91	1237	3.25	1282	3.59	1324	3.94	1367	4.30	1409	4.66
8600	2077	1061	2.02	1119	2.41	1171	2.78	1219	3.14	1265	3.51	1309	3.87	1352	4.25	1393	4.62	1432	5.00	1471	5.39
9400	2270	1149	2.56	1203	2.98	1252	3.39	1298	3.79	1342	4.19	1384	4.59	1424	4.99	1463	5.40	1502	5.81	1539	6.22
10200	2463	1238	3.19	1288	3.64	1335	4.10	1379	4.54	1421	4.97	1461	5.41	1499	5.84	1536	6.27	1573	6.71	1609	7.15
11000	2657	1328	3.93	1374	4.41	1419	4.90	1461	5.39	1501	5.85	1539	6.32	1576	6.79	1612	7.26	1646	7.72	1680	8.20
11800	2850	1419	4.77	1461	5.28	1504	5.81	1544	6.34	1583	6.85	1619	7.35	1655	7.85	1689	8.36	1722	8.85	1755	9.35
12600	3043	1509	5.74	1548	6.27	1589	6.83	1628	7.40	1665	7.96	1700	8.50	1734	9.03	1767	9.57	1800	10.1	1831	10.6
13400	3236	1600	6.83	1637	7.39	1675	7.98	1712	8.58	1748	9.19	1782	9.77	1815	10.3	1847	10.9	1878	11.5	1908	12.1
14200	3429	1691	8.05	1726	8.65	1762	9.27	1797	9.90	1832	10.5	1865	11.2	1897	11.8	1928	12.4	1958	13.0	1987	13.6
15000	3623	1782	9.41	1816	10.1	1849	10.7	1883	11.4	1916	12.0	1949	12.7	1980	13.4	2010	14.0	2039	14.7	2067	15.3

CFM	OV	STATIC PRESSURE (in. wg)																			
		2.50		3.00		3.50		4.00		4.50		5.00		5.50		6.00		6.50		7.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
7000	1690	1348	4.00	1444	4.80	1534	5.63	1619	6.49	1700	7.39	1786	8.38								
7800	1884	1409	4.66	1486	5.39	1571	6.23	1655	7.15	1734	8.09	1809	9.05	1881	10.0	1959	11.1				
8600	2077	1471	5.39	1547	6.18	1619	6.98	1692	7.85	1770	8.85	1845	9.86	1916	10.9	1984	12.0	2049	13.0	2119	14.2
9400	2270	1539	6.22	1610	7.06	1680	7.92	1746	8.80	1809	9.68	1881	10.7	1952	11.8	2020	12.9	2085	14.1	2148	15.2
10200	2463	1609	7.15	1677	8.05	1743	8.96	1808	9.89	1870	10.8	1929	11.8	1989	12.8	2056	14.0	2121	15.2	2184	16.4
11000	2657	1680	8.20	1747	9.15	1810	10.1	1871	11.1	1932	12.1	1990	13.1	2046	14.1	2100	15.2	2158	16.3	2220	17.6
11800	2850	1755	9.35	1818	10.4	1880	11.4	1938	12.4	1995	13.5	2052	14.6	2108	15.6	2161	16.7	2212	17.8	2262	19.0
12600	3043	1831	10.6	1892	11.7	1951	12.8	2008	13.9	2063	15.0	2116	16.1	2170	17.3	2223	18.4	2274	19.6	2323	20.7
13400	3236	1908	12.1	1967	13.2	2023	14.3	2079	15.5	2133	16.7	2185	17.8	2235	19.0	2285	20.2	2336	21.4	2384	22.7
14200	3429	1987	13.6	2044	14.8	2099	16.0	2152	17.2	2204	18.5	2255	19.7	2305	20.9	2352	22.2	2399	23.4	2447	24.7
15000	3623	2067	15.3	2122	16.6	2175	17.8	2227	19.1	2276	20.4	2326	21.7	2375	23.0	2422	24.3	2467	25.6	2512	27.0
15800	3816	2148	17.1	2201	18.5	2253	19.8	2303	21.2	2352	22.5	2398	23.9	2446	25.2	2492	26.6	2537	28.0	2581	29.4
16600	4009	2229	19.1	2281	20.5	2331	22.0	2380	23.4	2428	24.8	2474	26.2	2518	27.6	2564	29.0	2608	30.5	2651	31.9
17400	4202	2312	21.3	2362	22.8	2411	24.3	2458	25.8	2505	27.2	2550	28.7	2593	30.2	2636	31.7	2679	33.2	2722	34.7
18200	4396	2395	23.7	2444	25.2	2491	26.8	2538	28.3	2582	29.9	2626	31.4	2669	32.9	2711	34.5	2752	36.0	2793	37.6
19000	4500	2470	26.1	2526	27.8	2573	29.4	2618	31.0	2661	32.7	2704	34.3	2746	35.9	2787	37.5	2827	39.1	2867	40.7

CFM	OV	STATIC PRESSURE (in. wg)																			
		7.00		7.50		8.00		8.50		9.00		10.00		11.00		12.00		13.00		14.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
9000	2173	2130	14.7	2195	15.9	2262	17.1														
9900	2391	2170	15.9	2231	17.1	2289	18.4	2346	19.6	2405	20.9	2526	23.7								
10800	2608	2211	17.3	2272	18.5	2330	19.8	2387	21.1	2442	22.4	2548	25.1	2656	28.0	2766	31.1				
11700	2826	2255	18.7	2313	20.0	2371	21.4	2428	22.7	2482	24.1	2588	26.9	2689	29.8	2785	32.7	2887	35.9	2988	39.2
12600	3043	2323	20.7	2371	21.9	2417	23.1	2469	24.4	2524	25.9	2629	28.8	2729	31.8	2825	34.9	2918	38.0	3006	41.1
13500	3260	2392	22.9	2440	24.2	2486	25.4	2530	26.7	2574	28.0	2670	30.8	2770	33.9	2866	37.1	2958	40.4	3047	43.6
14400	3478	2463	25.3	2509	26.6	2555	27.9	2599	29.2	2643	30.6	2726	33.3	2812	36.2	2907	39.5	2999	42.8	3087	46.2
15300	3695	2538	27.8	2581	29.2	2625	30.6	2669	32.0	2712	33.4	2795	36.2	2874	39.1	2951	42.0	3040	45.4	3129	49.0
16200	3913	2616	30.6	2658	32.1	2699	33.5	2740	34.9	2782	36.4	2864	39.4	2943	42.4	3019	45.4	3092	48.4	3170	51.8
17100	4130	2695	33.6	2737	35.1	2777	36.6	2817	38.1	2856	39.7	2935	42.7	3013	45.9	3088	49.0	3160	52.2		
18000	4347	2775	36.9	2816	38.4	2856	40.0	2896	41.6	2934	43.1	3008	46.3	3083	49.6	3158	52.9				
18900	4565	2857	40.3	2897	42.0	2936	43.6	2975	45.2	3013	46.9	3086	50.2	3157	53.6						
19800	4782	2942	44.1	2980	45.8	3017	47.5	3055	49.2	3092	50.9	3165	54.3								
20700	5000	3028	48.1	3065	49.8	3101	51.6	3137	53.4	3173	55.1										
21600	5217	3114	52.3	3150	54.2	3186	56.0														
22500	5434	3201	56.9																		

Performance certified is for model BIDW Arrangement 3, Installation Type B: free inlet, ducted outlet.
Performance ratings do not include the effects of appurtenances (accessories).
Power rating (BHP) does not include transmission losses.



Class	Max RPM
I	1960
II	2554
III	3219

% WOV = (CFM X 100) / (RPM X 8.58)

Sound Power [dB Ref 10^{-12} watts]

Inlet Sound Power, L_{Wi}										
RPM	%WOV	1	2	3	4	5	6	7	8	L_{Wi}A
550	100	78	75	74	78	68	62	56	52	76
	80	76	73	71	75	67	60	54	50	74
	60	75	70	70	76	67	60	54	50	74
	50	75	69	69	76	67	60	54	50	75
	40	74	69	69	77	67	60	54	50	75
800	100	79	91	83	82	76	72	64	60	83
	80	80	89	81	78	72	67	59	54	80
	60	77	83	76	77	71	67	59	54	77
	50	76	80	74	76	71	67	60	55	77
	40	77	78	74	76	71	67	60	55	77
1100	100	85	92	91	89	85	81	74	70	90
	80	84	88	88	87	81	77	69	65	87
	60	83	84	83	83	79	76	70	65	85
	50	80	83	82	83	79	76	70	66	84
	40	80	83	82	83	78	75	70	66	84
1600	100	91	94	98	95	92	89	83	78	97
	80	88	91	96	93	90	86	80	75	95
	60	87	88	93	89	86	83	78	75	92
	50	87	88	91	88	85	82	78	75	91
	40	89	88	90	87	85	82	78	76	90
2200	100	98	100	103	105	98	96	91	88	105
	80	95	97	100	103	96	92	87	84	102
	60	92	93	98	99	93	91	87	84	100
	50	93	93	98	97	93	90	87	84	99
	40	95	95	98	98	92	90	88	86	99
3219	100	105	109	110	114	110	106	102	98	115
	80	103	106	107	111	107	102	98	94	112
	60	100	102	105	107	104	101	97	94	109
	50	101	103	105	105	103	100	97	94	108
	40	103	105	106	106	103	99	98	96	108

Outlet Sound Power, L_{Wo}										
RPM	%WOV	1	2	3	4	5	6	7	8	L_{Wo}A
550	100	90	78	75	68	67	59	52	47	73
	80	90	77	71	64	64	54	47	45	70
	60	83	74	68	63	62	54	48	45	67
	50	82	73	67	63	63	54	48	45	67
	40	82	73	67	63	63	54	48	46	67
800	100	93	96	83	77	77	71	63	57	84
	80	90	92	81	73	72	64	57	52	80
	60	87	84	76	72	69	63	57	53	75
	50	87	82	74	72	68	62	57	54	74
	40	89	83	73	71	68	62	57	54	74
1100	100	99	93	90	86	86	80	74	67	90
	80	96	92	88	83	81	74	67	61	86
	60	91	87	83	78	77	71	66	61	82
	50	91	86	82	77	76	71	66	62	81
	40	92	86	81	76	75	70	66	62	80
1600	100	105	98	98	94	93	89	85	77	98
	80	102	95	96	91	92	87	81	73	96
	60	100	91	93	87	87	83	77	72	92
	50	100	92	92	86	86	81	76	72	91
	40	100	93	92	85	84	81	76	72	90
2200	100	109	105	106	109	102	97	93	88	109
	80	107	101	101	105	98	93	89	83	105
	60	103	97	96	99	96	91	86	81	100
	50	104	98	95	97	94	89	85	81	99
	40	107	100	95	95	92	89	85	81	98
3219	100	117	115	113	118	114	108	104	99	118
	80	115	112	109	113	110	104	100	94	114
	60	111	108	105	107	106	102	97	92	110
	50	112	109	104	105	104	100	96	92	108
	40	116	112	106	103	102	99	95	92	107

The sound power level ratings shown are in decibels, referred to 10^{-12} watts calculated per AMCA Standard 301. Values shown are for inlet L_{Wi}, L_{Wi}A and outlet L_{Wo}, L_{Wo}A sound power levels for Installation Type B: free inlet, ducted outlet. Outlet ratings include the effects of duct end correction. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.

22 BIDW

Wheel Diameter = 22¼ in.
Outlet Area = 5.12 ft.^{2}
Tip Speed = 5.83 x RPM
Maximum BHP = (RPM/696)^3

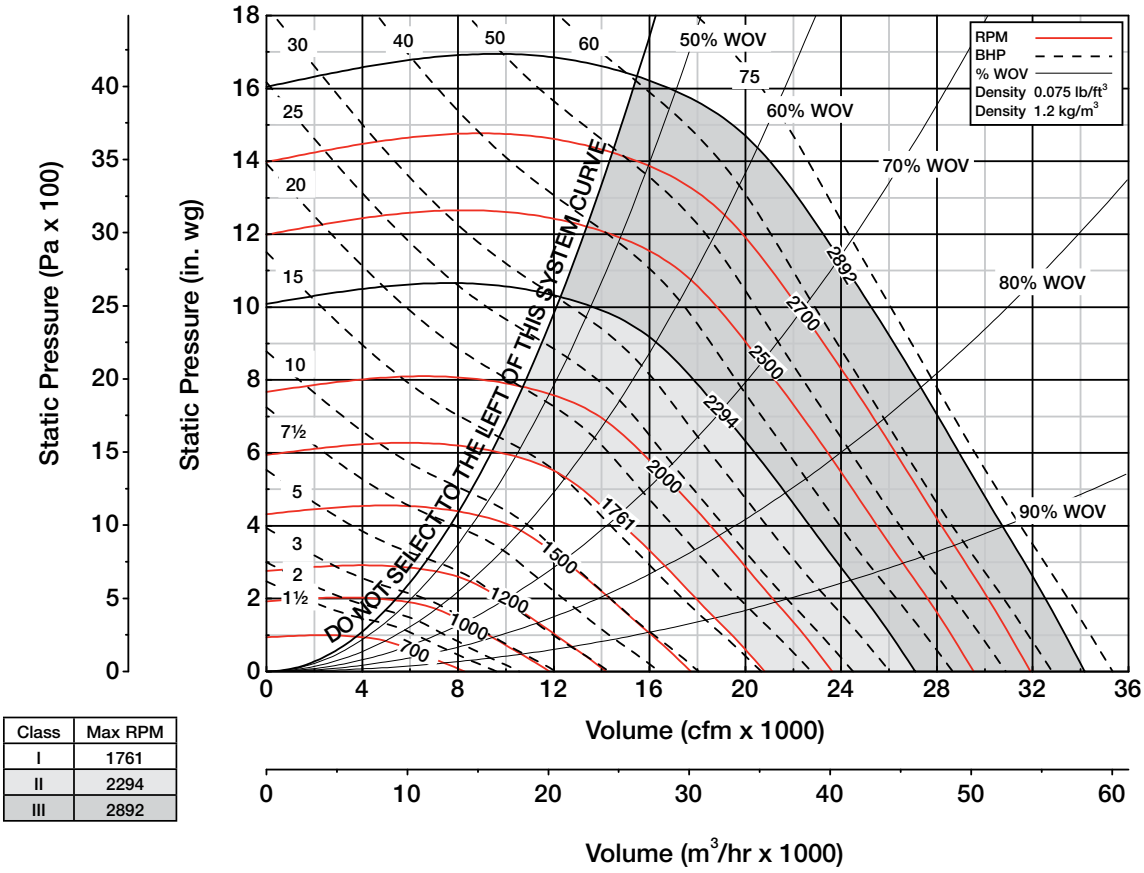
Minimum Starting HP = 1
Maximum RPM Class I = 1761
Maximum RPM Class II = 2294
Maximum RPM Class III = 2892

CFM	OV	STATIC PRESSURE (in. wg)																			
		0.25		0.50		0.75		1.00		1.25		1.50		1.75		2.00		2.25		2.50	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
4000	781	457	0.28	548	0.46	638	0.69	719	0.95												
4800	937	511	0.39	593	0.60	666	0.83	743	1.10	812	1.39	880	1.72								
5600	1093	568	0.54	643	0.78	711	1.03	773	1.29	838	1.60	900	1.93	958	2.28	1017	2.66				
6400	1250	626	0.72	696	1.00	759	1.27	817	1.56	871	1.86	927	2.19	984	2.57	1038	2.95	1088	3.35	1138	3.77
7200	1406	686	0.95	752	1.26	810	1.56	864	1.88	916	2.20	965	2.54	1011	2.88	1064	3.29	1114	3.71	1162	4.15
8000	1562	747	1.22	809	1.56	864	1.90	915	2.25	963	2.60	1010	2.96	1055	3.33	1097	3.70	1141	4.11	1188	4.57
8800	1718	809	1.54	867	1.92	919	2.30	968	2.67	1014	3.05	1058	3.44	1100	3.84	1142	4.24	1181	4.65	1219	5.06
9600	1875	871	1.91	927	2.34	976	2.75	1022	3.16	1066	3.57	1108	3.98	1148	4.41	1187	4.84	1226	5.27	1263	5.72
10400	2031	934	2.35	987	2.82	1034	3.27	1078	3.71	1120	4.15	1160	4.60	1199	5.05	1236	5.50	1272	5.96	1308	6.44
11200	2187	998	2.86	1048	3.36	1093	3.85	1136	4.33	1176	4.80	1214	5.28	1251	5.76	1287	6.25	1322	6.74	1356	7.23
12000	2343	1062	3.44	1109	3.97	1153	4.51	1194	5.02	1232	5.53	1269	6.04	1305	6.55	1339	7.06	1373	7.59	1406	8.11
12800	2500	1127	4.10	1171	4.66	1214	5.24	1253	5.79	1290	6.34	1325	6.88	1360	7.42	1393	7.97	1425	8.52	1457	9.07
13600	2656	1193	4.85	1234	5.44	1274	6.05	1312	6.65	1348	7.23	1383	7.81	1416	8.39	1448	8.96	1479	9.54	1509	10.1
14400	2812	1258	5.68	1297	6.30	1336	6.94	1373	7.59	1407	8.21	1441	8.82	1472	9.44	1504	10.1	1534	10.7	1563	11.3
15200	2968	1324	6.61	1360	7.25	1398	7.93	1433	8.61	1467	9.29	1499	9.93	1530	10.6	1560	11.2	1590	11.9	1618	12.5
16000	3125	1390	7.63	1424	8.31	1460	9.02	1494	9.74	1527	10.5	1559	11.1	1589	11.8	1618	12.5	1646	13.2	1674	13.9

CFM	OV	STATIC PRESSURE (in. wg)																			
		2.50		3.00		3.50		4.00		4.50		5.00		5.50		6.00		6.50		7.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
9000	1757	1230	5.22	1309	6.16	1390	7.22	1466	8.30	1537	9.42	1610	10.6	1683	11.9						
9800	1914	1274	5.89	1344	6.80	1417	7.83	1492	8.97	1563	10.1	1630	11.3	1694	12.6	1762	13.9	1829	15.3		
10600	2070	1320	6.63	1388	7.60	1453	8.59	1519	9.68	1590	10.9	1657	12.2	1720	13.4	1782	14.8	1840	16.1	1904	17.5
11400	2226	1368	7.44	1434	8.47	1497	9.52	1557	10.6	1616	11.7	1683	13.0	1747	14.4	1808	15.7	1866	17.1	1923	18.5
12200	2382	1419	8.34	1481	9.42	1542	10.5	1601	11.7	1657	12.8	1711	13.9	1773	15.3	1834	16.7	1893	18.2	1949	19.7
13000	2539	1470	9.33	1531	10.5	1588	11.6	1646	12.8	1702	14.0	1754	15.2	1805	16.4	1861	17.8	1919	19.3	1975	20.8
13800	2695	1522	10.4	1582	11.6	1638	12.8	1692	14.0	1747	15.3	1799	16.6	1849	17.8	1898	19.1	1946	20.5	2002	22.1
14600	2851	1577	11.6	1634	12.8	1689	14.1	1742	15.4	1793	16.7	1844	18.0	1894	19.3	1942	20.7	1988	22.1	2033	23.4
15400	3007	1632	12.8	1687	14.2	1741	15.5	1793	16.8	1842	81.2	1890	19.5	1939	21.0	1987	22.4	2033	23.8	2077	25.2
16200	3164	1688	14.2	1742	15.6	1793	17.0	1844	18.4	1893	19.8	1940	21.2	1985	22.7	2032	24.1	2078	25.6	2122	27.1
17000	3320	1745	15.7	1797	17.1	1847	18.6	1896	20.0	1944	21.5	1990	23.0	2035	24.5	2079	26.0	2123	27.6	2167	29.1
17800	3476	1802	17.3	1853	18.8	1902	20.3	1949	21.8	1996	23.4	2042	24.9	2086	26.5	2129	28.0	2170	29.6	2212	31.2
18600	3632	1861	19.0	1910	20.6	1958	22.2	2004	23.7	2048	25.3	2093	26.9	2137	28.6	2179	30.2	2220	31.8	2260	33.5
19400	3789	1919	20.8	1967	22.5	2014	24.1	2059	25.8	2103	27.4	2146	29.1	2189	30.8	2230	32.5	2271	34.2	2310	35.9
20200	3945	1978	22.8	2025	24.5	2071	26.3	2115	28.0	2158	29.7	2200	13.4	2241	33.1	2282	34.9	2322	36.6	2361	38.4
21000	4101	2038	24.9	2084	26.7	2128	28.5	2172	30.3	2214	32.0	2255	33.8	2294	35.6	2334	37.4	2373	39.2	2412	41.1

CFM	OV	STATIC PRESSURE (in. wg)																			
		7.00		7.50		8.00		8.50		9.00		10.00		11.00		12.00		13.00		14.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
11000	2148	1910	18.0	1971	19.5	2031	21.0														
12100	2363	1946	19.5	2000	21.0	2053	22.5	2104	24.0	2160	25.7										
13200	2578	1982	21.1	2036	22.7	2089	24.3	2140	25.9	2189	27.5	2285	30.8	2386	34.4						
14300	2792	2019	22.8	2073	24.5	2125	26.1	2176	27.8	2225	29.5	2320	33.0	2411	36.5	2498	40.1	2593	44.1		
15400	3007	2077	25.2	2120	26.7	2162	28.1	2213	29.9	2262	31.7	2356	35.3	2447	38.9	2533	42.7	2616	46.5	2698	50.5
16500	3222	2138	27.8	2181	29.4	2223	30.9	2263	32.5	2302	34.0	2393	37.7	2483	41.5	2569	45.4	2652	49.4	2732	53.4
17600	3437	2201	30.7	2243	32.3	2284	33.9	2324	35.5	2363	37.2	2438	40.5	2520	44.2	2606	48.3	2688	52.4	2768	56.6
18700	3652	2266	33.8	2306	35.4	2346	37.1	2386	38.8	2424	40.6	2499	44.0	2570	47.5	2643	51.2	2725	55.5	2804	59.9
19800	3867	2335	37.1	2373	38.9	2411	40.6	2449	42.4	2487	44.2	2560	47.8	2631	51.5	2700	55.2	2765	58.9	2841	63.3
20900	4082	2405	40.7	2443	24.5	2480	44.4	2516	46.2	2551	48.1	2623	51.9	2693	55.7	2761	59.6	2826	63.5	2889	67.4
22000	4296	2476	44.6	2513	46.5	2550	48.4	2585	50.4	2620	52.3	2687	56.2	2755	60.2	2822	64.2	2887	68.3		
23100	4511	2548	48.8	2585	50.8	2620	52.8	2655	54.8	2689	56.8	2756	60.8	2820	64.9	2885	69.1				
24200	4726	2623	53.2	2657	55.3	2692	57.4	2726	59.5	2760	61.6	2825	65.8	2888	70.1						
25300	4941	2699	58.0	2733	60.2	2765	62.3	2798	64.5	2831	66.7										
26400	5156	2776	63.2	2809	65.4	2841	67.6	2873	69.9												
27500	5371	2853	68.6	2885	70.9																

Performance certified is for model BIDW Arrangement 3, Installation Type B: free inlet, ducted outlet.
Performance ratings do not include the effects of appurtenances (accessories).
Power rating (BHP) does not include transmission losses.



Class	Max RPM
I	1761
II	2294
III	2892

% WOV = (CFM X 100) / (RPM X 11.8)

Sound Power [dB Ref 10^{-12} watts]

RPM	%WOV	Inlet Sound Power, L_{Wi} 1	2	3	4	5	6	7	8	L_{Wi}A
500	100	80	76	76	78	69	62	57	52	77
	80	78	74	73	75	67	60	55	51	74
	60	77	71	72	76	67	60	55	51	74
	50	77	70	72	76	67	60	55	51	75
	40	76	70	71	76	67	60	54	51	75
700	100	82	90	83	81	75	71	63	60	83
	80	81	88	80	77	71	66	58	53	79
	60	78	82	76	76	71	66	59	54	77
	50	77	79	75	75	71	66	59	54	76
	40	77	78	74	76	70	66	59	54	76
1000	100	87	94	92	90	86	82	75	70	91
	80	85	90	89	87	82	77	70	65	88
	60	84	86	85	84	80	76	70	66	85
	50	81	85	83	83	79	76	70	66	85
	40	81	85	83	83	79	76	71	67	85
1400	100	91	95	98	95	92	88	83	77	97
	80	89	92	96	93	90	85	79	75	95
	60	87	89	93	89	86	82	77	74	91
	50	87	89	91	88	85	82	78	75	90
	40	88	89	90	87	85	81	78	75	90
2000	100	99	101	105	106	99	96	92	88	106
	80	97	99	102	103	96	93	88	85	103
	60	93	95	99	99	94	91	87	85	100
	50	94	95	98	98	93	91	87	85	99
	40	96	97	99	98	93	91	89	87	100
2892	100	107	109	111	115	110	106	102	98	116
	80	105	107	108	112	107	103	98	95	113
	60	101	103	106	108	104	101	97	94	110
	50	103	103	107	107	103	100	97	94	109
	40	105	105	107	107	103	100	98	96	109

RPM	%WOV	Outlet Sound Power, L_{Wo} 1	2	3	4	5	6	7	8	L_{Wo}A
500	100	92	79	75	69	67	59	52	48	73
	80	92	78	72	65	64	54	48	46	71
	60	84	74	68	64	62	54	48	46	68
	50	83	73	68	64	63	54	49	46	67
	40	84	74	68	64	63	54	49	46	68
700	100	94	93	82	77	76	69	62	56	82
	80	91	90	80	73	70	63	56	52	79
	60	87	83	76	72	68	62	57	53	75
	50	86	81	74	71	68	62	57	54	74
	40	88	81	73	71	67	61	57	54	73
1000	100	100	95	91	87	86	81	74	67	90
	80	96	93	89	84	81	74	67	61	87
	60	92	89	84	79	78	72	66	62	83
	50	92	88	82	78	77	71	66	62	82
	40	92	88	81	77	76	71	67	63	81
1400	100	104	98	98	94	93	89	83	76	97
	80	101	96	96	92	91	86	80	72	95
	60	98	92	92	88	87	82	76	72	91
	50	98	93	91	87	85	81	76	72	90
	40	99	93	91	86	84	80	76	72	89
2000	100	110	106	108	110	102	98	94	88	109
	80	107	102	104	105	99	94	89	83	105
	60	103	98	98	100	96	91	86	81	101
	50	104	98	97	98	94	90	86	81	99
	40	107	101	96	96	93	89	86	82	98
2892	100	119	115	114	119	113	108	104	99	119
	80	116	112	110	115	110	104	100	94	115
	60	112	108	105	108	106	102	97	92	110
	50	113	109	105	106	104	100	96	92	109
	40	117	112	106	104	103	99	96	92	108

The sound power level ratings shown are in decibels, referred to 10^{-12} watts calculated per AMCA Standard 301. Values shown are for inlet L_{Wi}, L_{Wi}A and outlet L_{Wo}, L_{Wo}A sound power levels for Installation Type B: free inlet, ducted outlet. Outlet ratings include the effects of duct end correction. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.

24 BIDW

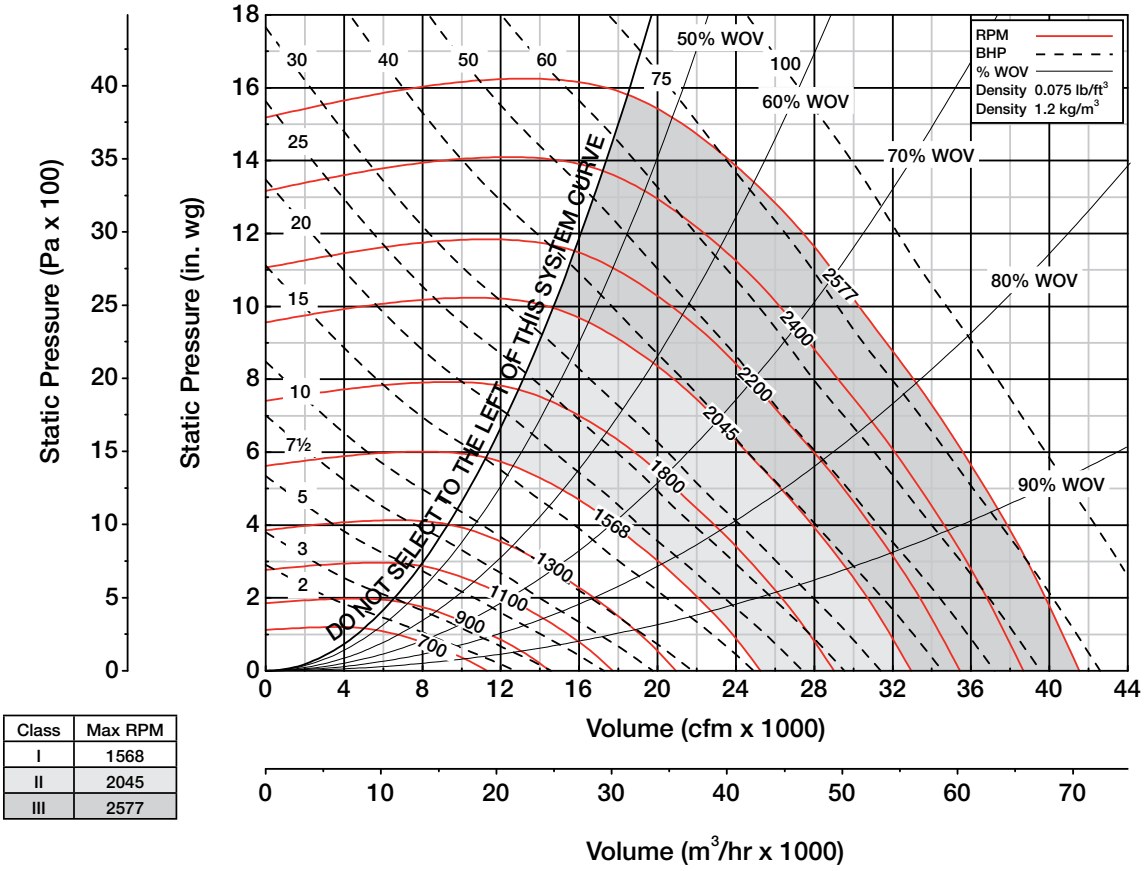
Wheel Diameter = 24½ in.	Minimum Starting HP = 1
Outlet Area = 6.21 ft.^{2}	Maximum RPM Class I = 1568
Tip Speed = 6.41 x RPM	Maximum RPM Class II = 2045
Maximum BHP = (RPM/599)^3	Maximum RPM Class III = 2577

CFM	OV	STATIC PRESSURE (in. wg)																			
		0.25		0.50		0.75		1.00		1.25		1.50		1.75		2.00		2.25		2.50	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
5000	805	416	0.34	504	0.58	585	0.85	656	1.14												
6000	966	462	0.46	542	0.74	613	1.04	681	1.36	744	1.71	801	2.06								
7000	1127	512	0.62	586	0.94	650	1.26	711	1.62	769	1.99	826	2.39	878	2.79	927	3.20	972	3.63		
8000	1288	564	0.82	632	1.17	692	1.54	748	1.92	801	2.32	851	2.74	903	3.18	951	3.64	997	4.10	1040	4.57
9000	1449	619	1.07	679	1.46	737	1.87	789	2.28	838	2.70	886	3.16	931	3.62	977	4.11	1022	4.61	1065	5.11
10000	1610	675	1.36	730	1.79	783	2.23	833	2.70	879	3.15	923	3.62	968	4.12	1009	4.63	1049	5.16	1090	5.70
11000	1771	731	1.72	782	2.19	831	2.66	879	3.16	924	3.68	965	4.17	1005	4.68	1046	5.23	1085	5.78	1122	6.35
12000	1932	789	2.14	836	2.64	882	3.16	925	3.69	969	4.24	1009	4.80	1048	5.34	1084	5.88	1122	6.47	1159	7.08
13000	2093	848	2.63	891	3.17	933	3.73	975	4.29	1015	4.87	1055	5.47	1092	6.08	1128	6.66	1162	7.25	1196	7.86
14000	2254	907	3.20	947	3.76	986	4.37	1025	4.97	1063	5.58	1101	6.21	1137	6.86	1172	7.51	1205	8.14	1237	8.78
15000	2415	967	3.85	1003	4.44	1040	5.08	1077	5.73	1113	6.37	1148	7.03	1183	7.71	1217	8.41	1250	9.11	1281	9.79
16000	2576	1027	4.58	1060	5.21	1095	5.88	1129	6.57	1164	7.26	1198	7.95	1230	8.66	1264	9.39	1295	10.1	1326	10.9
17000	2737	1087	5.41	1118	6.07	1151	6.78	1184	7.50	1216	8.24	1248	8.97	1280	9.71	1310	10.5	1342	11.2	1372	12.0
18000	2898	1147	6.34	1177	7.04	1207	7.77	1239	8.53	1269	9.31	1300	10.1	1330	10.9	1359	11.6	1388	12.4	1418	13.3
19000	3059	1208	7.38	1236	8.11	1264	8.86	1294	9.67	1323	10.5	1352	11.3	1381	12.1	1410	12.9	1437	13.8	1465	14.6
20000	3220	1269	8.52	1295	9.29	1321	10.1	1350	10.9	1378	11.8	1405	12.6	1433	13.5	1460	14.3	1487	15.2	1513	16.1

CFM	OV	STATIC PRESSURE (in. wg)																			
		2.50		3.00		3.50		4.00		4.50		5.00		5.50		6.00		6.50		7.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
10000	1610	1090	5.70	1170	6.82	1244	7.97	1313	9.14	1378	10.4										
11000	1771	1122	6.35	1196	7.53	1269	8.75	1338	10.0	1402	11.3	1464	12.6	1522	13.9						
12000	1932	1159	7.08	1227	8.31	1295	9.59	1363	10.9	1427	12.3	1488	13.7	1547	15.1	1602	16.5	1656	18.0		
13000	2093	1196	7.86	1264	9.17	1327	10.5	1388	11.9	1453	13.3	1513	14.8	1571	16.3	1627	17.8	1680	19.3	1732	20.8
14000	2254	1237	8.78	1301	10.1	1364	11.5	1423	13.0	1478	14.4	1539	16.0	1596	17.5	1652	19.1	1705	20.7	1756	22.3
15000	2415	1281	9.79	1341	11.2	1401	12.6	1459	14.1	1514	15.6	1567	17.2	1622	18.8	1677	20.5	1730	22.2	1781	23.9
16000	2576	1326	10.9	1385	12.3	1440	13.8	1496	15.3	1551	17.0	1603	18.6	1653	20.3	1703	21.9	1755	23.7	1806	25.5
17000	2737	1372	12.0	1429	13.6	1483	15.1	1535	16.7	1588	18.3	1640	20.1	1689	21.8	1737	23.5	1783	25.3	1832	27.2
18000	2898	1418	13.3	1474	14.9	1528	16.6	1578	18.2	1626	19.9	1677	21.6	1726	23.4	1773	25.3	1819	27.1	1863	29.0
19000	3059	1465	14.6	1520	16.4	1572	18.1	1622	19.9	1670	21.6	1715	23.3	1763	25.2	1810	27.1	1856	29.0	1899	30.9
20000	3220	1513	16.1	1566	17.9	1618	19.7	1667	21.6	1714	23.4	1759	25.2	1802	27.0	1847	29.0	1892	31.0	1936	33.0
21000	3381	1564	17.7	1613	19.5	1664	21.4	1712	23.4	1758	25.4	1803	27.2	1846	29.1	1887	31.0	1930	33.1	1973	35.1
22000	3542	1614	19.4	1662	21.3	1711	23.3	1758	25.3	1804	27.3	1848	29.4	1890	31.4	1931	33.4	1971	35.4	2010	37.4
23000	3703	1666	21.2	1713	23.2	1758	25.2	1804	27.3	1849	29.4	1893	31.6	1934	33.8	1975	35.8	2014	37.9	2052	40.0
24000	3864	1717	23.2	1764	25.3	1808	27.4	1851	29.5	1896	31.7	1938	33.9	1979	36.1	2019	38.4	2058	40.5	2096	42.7
25000	4025	1770	25.3	1815	27.5	1858	29.6	1900	31.8	1942	34.1	1984	36.4	2025	38.7	2064	41.0	2103	43.4	2140	45.6

CFM	OV	STATIC PRESSURE (in. wg)																			
		7.00		7.50		8.00		8.50		9.00		10.00		11.00		12.00		13.00		14.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
14000	2254	1756	22.3	1806	24.0	1854	25.6	1900	27.3	1945	29.0										
15300	2463	1789	24.3	1838	26.1	1886	27.8	1932	29.6	1977	31.4	2064	35.1								
16600	2673	1822	26.5	1871	28.3	1918	30.2	1965	32.1	2009	34.0	2096	37.8	2178	41.7	2257	45.7				
17900	2882	1860	28.8	1904	30.7	1951	32.7	1997	34.6	2042	36.6	2128	40.7	2210	44.8	2289	49.0	2364	53.2	2437	57.6
19200	3091	1907	31.3	1949	33.3	1990	35.3	2031	37.3	2075	39.4	2161	43.7	2243	48.0	2321	52.4	2396	56.8	2469	61.3
20500	3301	1954	34.0	1997	36.1	2037	38.2	2077	40.3	2116	42.5	2194	46.8	2276	51.3	2354	55.9	2429	60.6	2501	65.3
21800	3510	2003	37.0	2045	39.1	2085	41.3	2125	43.5	2163	45.8	2237	50.3	2309	54.9	2387	59.6	2462	64.5	2534	69.4
23100	3719	2057	40.2	2094	42.3	2134	44.6	2173	46.9	2211	49.2	2285	53.9	2355	58.7	2423	63.5	2495	68.5	2567	73.6
24400	3929	2114	43.8	2150	46.0	2186	48.3	2221	50.5	2259	52.9	2332	57.8	2402	62.8	2470	67.8	2535	72.9		
25700	4138	2171	47.7	2207	50.0	2243	52.3	2277	54.6	2311	57.0	2381	61.9	2450	67.1	2517	72.3				
27000	4347	2230	51.7	2265	54.2	2300	56.6	2334	59.1	2367	61.5	2432	66.4	2499	71.6	2565	77.0				
28300	4557	2289	55.8	2324	58.5	2358	61.1	2392	63.8	2425	66.3	2488	71.4	2550	76.5						
29600	4766	2349	60.3	2383	63.0	2417	65.8	2450	68.5	2483	71.3	2546	76.7								
30900	4975	2409	65.0	2443	67.9	2477	70.7	2509	73.6	2541	76.5										
32200	5185	2470	70.1	2504	73.0	2537	75.9	2569	78.9												
33500	5394	2534	75.5	2565	78.4																

Performance certified is for model BIDW Arrangement 3, Installation Type B: free inlet, ducted outlet.
Performance ratings do not include the effects of appurtenances (accessories).
Power rating (BHP) does not include transmission losses.



Class	Max RPM
I	1568
II	2045
III	2577

% WOV = (CFM X 100) / (RPM X 16.1)

Sound Power [dB Ref 10^{-12} watts]

RPM	%WOV	Inlet Sound Power, L_{Wi} 1	2	3	4	5	6	7	8	L_{Wi}A
450	100	81	80	78	72	67	60	53	50	74
	80	80	80	76	68	64	57	51	48	72
	60	77	78	73	68	64	57	52	49	70
	50	77	78	71	68	64	57	52	49	70
	40	77	78	70	67	64	57	52	49	70
650	100	88	87	82	76	74	69	61	57	80
	80	87	85	79	74	72	66	59	56	78
	60	84	82	77	73	71	64	58	55	76
	50	83	81	76	72	71	64	59	56	75
	40	81	80	75	72	71	65	59	57	75
900	100	90	94	88	85	81	78	72	69	87
	80	87	91	85	83	79	74	69	68	85
	60	85	87	82	82	78	73	70	69	83
	50	85	86	81	82	77	73	70	69	83
	40	88	85	80	81	77	73	71	69	83
1300	100	95	94	101	94	90	88	84	80	97
	80	92	91	98	90	87	83	80	78	94
	60	90	88	93	87	84	80	79	78	90
	50	92	87	92	86	84	80	79	78	90
	40	92	88	91	85	84	80	79	78	89
1800	100	102	99	110	102	99	97	94	88	106
	80	99	96	106	99	95	92	88	84	102
	60	95	92	102	95	92	89	86	83	98
	50	95	92	100	94	91	88	86	84	98
	40	99	94	98	93	90	88	86	85	96
2577	100	108	111	112	116	108	106	103	99	115
	80	106	108	108	112	105	101	98	94	112
	60	101	104	104	108	101	98	95	92	108
	50	101	104	104	106	100	98	95	93	107
	40	105	107	104	104	99	97	95	94	106

RPM	%WOV	Outlet Sound Power, L_{Wo} 1	2	3	4	5	6	7	8	L_{Wo}A
450	100	82	81	76	71	67	58	50	45	73
	80	78	78	73	68	62	52	45	43	70
	60	73	73	68	67	62	52	47	44	68
	50	74	73	66	66	62	53	47	44	67
	40	77	76	67	65	63	54	48	44	68
650	100	97	93	81	76	75	68	60	53	82
	80	97	92	80	74	71	63	55	50	80
	60	90	86	74	71	69	61	56	52	75
	50	87	83	72	70	69	61	57	53	74
	40	88	84	72	69	69	61	57	53	74
900	100	93	97	88	83	82	78	71	63	88
	80	90	95	84	79	78	73	67	61	84
	60	88	91	81	76	75	69	64	61	81
	50	88	87	79	75	74	68	65	61	79
	40	91	89	79	74	74	70	66	62	80
1300	100	100	100	101	94	92	89	84	77	98
	80	96	96	97	91	88	83	78	71	94
	60	92	93	95	86	84	79	75	72	90
	50	93	93	94	85	83	78	75	72	89
	40	95	94	92	84	82	78	76	73	88
1800	100	107	106	105	103	101	98	95	87	106
	80	103	101	102	99	97	93	88	82	102
	60	100	99	99	95	94	88	85	80	98
	50	100	99	98	94	92	87	84	80	97
	40	104	101	96	92	90	85	85	81	95
2577	100	113	114	113	112	110	108	104	100	115
	80	110	111	109	109	106	103	98	93	111
	60	106	107	107	106	102	99	94	90	107
	50	106	107	106	104	100	97	93	90	106
	40	110	111	106	102	98	95	93	91	105

The sound power level ratings shown are in decibels, referred to 10^{-12} watts calculated per AMCA Standard 301. Values shown are for inlet L_{Wi}, L_{Wi}A and outlet L_{Wo}, L_{Wo}A sound power levels for Installation Type B: free inlet, ducted outlet. Outlet ratings include the effects of duct end correction. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.

27 BIDW

Wheel Diameter = 27 in.
Outlet Area = 7.54 ft.^{2}
Tip Speed = 7.07 x RPM
Maximum BHP = (RPM/509)^3

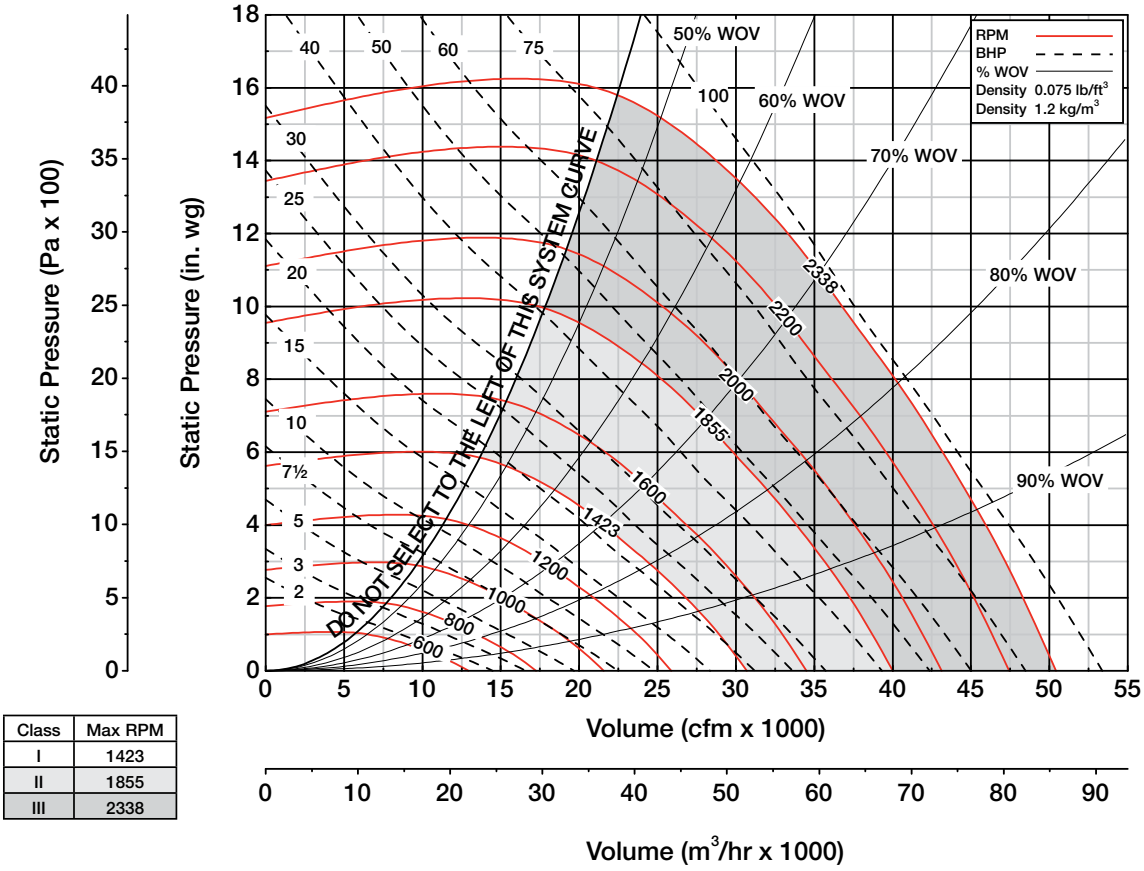
Minimum Starting HP = 1½
Maximum RPM Class I = 1423
Maximum RPM Class II = 1855
Maximum RPM Class III = 2338

CFM	OV	STATIC PRESSURE (in. wg)																			
		0.25		0.50		0.75		1.00		1.25		1.50		1.75		2.00		2.25		2.50	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
5000	805	416	0.34	504	0.58	585	0.85	656	1.14												
6000	966	462	0.46	542	0.74	613	1.04	681	1.36	744	1.71	801	2.06								
7000	1127	512	0.62	586	0.94	650	1.26	711	1.62	769	1.99	826	2.39	878	2.79	927	3.20	972	3.63		
8000	1288	564	0.82	632	1.17	692	1.54	748	1.92	801	2.32	851	2.74	903	3.18	951	3.64	997	4.10	1040	4.57
9000	1449	619	1.07	679	1.46	737	1.87	789	2.28	838	2.70	886	3.16	931	3.62	977	4.11	1022	4.61	1065	5.11
10000	1610	675	1.36	730	1.79	783	2.23	833	2.70	879	3.15	923	3.62	968	4.12	1009	4.63	1049	5.16	1090	5.70
11000	1771	731	1.72	782	2.19	831	2.66	879	3.16	924	3.68	965	4.17	1005	4.68	1046	5.23	1085	5.78	1122	6.35
12000	1932	789	2.14	836	2.64	882	3.16	925	3.69	969	4.24	1009	4.80	1048	5.34	1084	5.88	1122	6.47	1159	7.08
13000	2093	848	2.63	891	3.17	933	3.73	975	4.29	1015	4.87	1055	5.47	1092	6.08	1128	6.66	1162	7.25	1196	7.86
14000	2254	907	3.20	947	3.76	986	4.37	1025	4.97	1063	5.58	1101	6.21	1137	6.86	1172	7.51	1205	8.14	1237	8.78
15000	2415	967	3.85	1003	4.44	1040	5.08	1077	5.73	1113	6.37	1148	7.03	1183	7.71	1217	8.41	1250	9.11	1281	9.79
16000	2576	1027	4.58	1060	5.21	1095	5.88	1129	6.57	1164	7.26	1198	7.95	1230	8.66	1264	9.39	1295	10.1	1326	10.9
17000	2737	1087	5.41	1118	6.07	1151	6.78	1184	7.50	1216	8.24	1248	8.97	1280	9.71	1310	10.5	1342	11.2	1372	12.0
18000	2898	1147	6.34	1177	7.04	1207	7.77	1239	8.53	1269	9.31	1300	10.1	1330	10.9	1359	11.6	1388	12.4	1418	13.3
19000	3059	1208	7.38	1236	8.11	1264	8.86	1294	9.67	1323	10.5	1352	11.3	1381	12.1	1410	12.9	1437	13.8	1465	14.6
20000	3220	1269	8.52	1295	9.29	1321	10.1	1350	10.9	1378	11.8	1405	12.6	1433	13.5	1460	14.3	1487	15.2	1513	16.1

CFM	OV	STATIC PRESSURE (in. wg)																			
		2.50		3.00		3.50		4.00		4.50		5.00		5.50		6.00		6.50		7.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
12000	1591	987	6.84	1059	8.18	1126	9.56	1189	11.0	1248	12.4										
13200	1750	1014	7.60	1082	9.02	1149	10.5	1211	12.0	1270	13.6	1325	15.1								
14400	1909	1046	8.46	1109	9.95	1171	11.5	1233	13.1	1292	14.7	1347	16.4	1400	18.1	1451	19.8	1499	21.6		
15600	2068	1080	9.40	1142	11.0	1199	12.6	1256	14.2	1314	16.0	1370	17.7	1422	19.5	1473	21.3	1521	23.2	1568	25.0
16800	2228	1116	10.5	1175	12.1	1232	13.8	1285	15.5	1337	17.3	1392	19.1	1445	21.0	1495	22.9	1543	24.8	1590	26.8
18000	2387	1156	11.7	1210	13.3	1265	15.1	1318	16.9	1368	18.7	1416	20.6	1467	22.6	1518	24.6	1566	26.6	1612	28.6
19200	2546	1196	13.0	1249	14.7	1299	16.4	1351	18.3	1401	20.3	1448	22.2	1494	24.2	1540	26.3	1588	28.4	1635	30.6
20400	2705	1236	14.3	1289	16.2	1338	18.0	1385	19.9	1434	21.9	1481	24.0	1526	26.1	1570	28.2	1611	30.3	1657	32.6
21600	2864	1278	15.8	1329	17.8	1377	19.8	1423	21.7	1468	23.7	1514	25.8	1559	28.0	1602	30.2	1644	32.4	1684	34.7
22800	3023	1319	17.4	1370	19.5	1417	21.6	1463	23.7	1506	25.7	1548	27.8	1592	30.1	1635	32.4	1676	34.7	1716	37.0
24000	3183	1362	19.1	1411	21.3	1458	23.5	1503	25.7	1546	27.9	1587	30.1	1626	32.2	1668	34.6	1709	37.0	1749	39.4
25200	3342	1407	21.0	1453	23.2	1499	25.5	1543	27.8	1585	30.2	1626	32.5	1665	34.7	1703	37.0	1743	37.5	1782	42.0
26400	3501	1453	23.0	1497	25.3	1541	27.7	1584	30.1	1626	32.6	1666	35.0	1704	37.4	1742	39.8	1778	42.2	1815	44.7
27600	3660	1499	25.2	1542	27.6	1583	30.0	1626	32.5	1667	35.0	1706	37.6	1744	40.2	1781	42.7	1817	45.1	1851	47.7
28800	3819	1545	27.5	1587	30.0	1627	32.5	1668	35.1	1708	37.7	1747	40.4	1784	43.0	1821	45.7	1856	48.3	1891	50.9
30000	3978	1592	30.0	1633	32.6	1672	35.1	1710	37.8	1750	40.5	1788	43.2	1825	46.0	1861	48.8	1896	51.6	1930	54.3

CFM	OV	STATIC PRESSURE (in. wg)																			
		7.00		7.50		8.00		8.50		9.00		10.00		11.00		12.00		13.00		14.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
17000	2254	1593	27.1	1638	29.1	1682	31.1	1724	33.2	1765	35.2										
18600	2466	1623	29.6	1668	31.7	1711	33.8	1753	36.0	1794	38.2	1873	42.7								
20200	2679	1654	32.2	1698	34.5	1741	36.7	1783	39.0	1824	41.3	1902	46.0	1977	50.8	2049	55.6				
21800	2891	1689	35.1	1729	37.4	1772	39.8	1813	42.2	1854	44.6	1932	49.5	2007	54.6	2078	59.6	2147	64.8	2213	70.1
23400	3103	1732	38.2	1771	40.6	1808	43.1	1845	45.5	1884	48.1	1962	53.2	2037	58.5	2108	63.8	2176	69.2	2242	74.7
25000	3315	1776	41.6	1814	44.1	1852	46.7	1888	49.2	1923	51.8	1993	57.1	2067	62.6	2138	68.2	2206	73.9	2271	79.6
26600	3527	1821	45.2	1859	47.8	1895	50.5	1931	53.2	1966	55.9	2034	61.4	2098	67.0	2168	72.8	2236	78.7	2301	84.6
28200	3740	1871	49.3	1905	51.8	1940	54.6	1975	57.4	2010	60.2	2077	65.9	2141	71.7	2202	77.6	2266	83.7	2332	89.9
29800	3952	1923	53.7	1957	56.4	1989	59.1	2020	61.8	2055	64.8	2121	70.7	2184	76.8	2246	82.9	2304	89.1		
31400	4164	1977	58.5	2009	61.3	2041	64.1	2072	67.0	2103	69.8	2165	75.8	2228	82.1	2289	88.5				
33000	4376	2030	63.4	2063	66.5	2094	69.5	2125	72.5	2155	75.4	2213	81.4	2273	87.7	2333	94.3				
34600	4588	2085	68.6	2117	71.8	2148	75.0	2178	78.3	2208	81.4	2266	87.6	2321	93.9						
36200	4801	2140	74.1	2171	77.5	2202	80.8	2232	84.2	2261	87.6	2318	64.2								
37800	5013	2196	80.0	2227	83.5	2257	86.9	2286	90.4	2315	94.0										
39400	5225	2252	86.3	2282	89.9	2312	93.5														
41000	5437	2312	93.0																		

Performance certified is for model BIDW Arrangement 3, Installation Type B: free inlet, ducted outlet.
Performance ratings do not include the effects of appurtenances (accessories).
Power rating (BHP) does not include transmission losses.



Class	Max RPM
I	1423
II	1855
III	2338

% WOV = (CFM X 100) / (RPM X 21.6)

Sound Power [dB Ref 10^{-12} watts]

Inlet Sound Power, L_{Wi}

RPM	%WOV	1	2	3	4	5	6	7	8	L_{Wi}A
400	100	83	80	78	71	67	59	53	50	74
	80	81	80	75	68	64	56	51	48	71
	60	79	78	72	68	64	56	51	49	70
	50	78	78	71	67	64	56	51	49	70
	40	78	79	69	67	64	56	51	50	70
600	100	90	86	83	77	76	69	61	58	80
	80	89	84	80	75	73	67	59	57	78
	60	86	81	78	74	72	65	59	56	76
	50	85	80	76	73	72	65	59	57	76
	40	83	79	76	72	72	65	60	57	76
800	100	91	94	88	85	81	77	72	69	87
	80	88	91	85	83	78	74	69	68	85
	60	86	88	82	82	77	73	70	69	83
	50	85	87	82	81	77	73	71	69	83
	40	88	85	80	81	77	73	71	69	83
1200	100	96	96	102	94	91	89	84	81	98
	80	94	93	98	91	88	84	81	79	94
	60	91	90	94	88	85	81	80	79	91
	50	93	89	93	87	85	81	81	79	91
	40	93	89	92	86	85	81	80	79	90
1700	100	104	101	113	103	100	99	95	90	108
	80	102	97	109	100	96	94	90	86	104
	60	98	93	104	96	94	90	87	85	100
	50	98	93	103	95	93	90	88	86	99
	40	101	95	100	94	92	89	88	87	98
2338	100	110	111	115	115	108	106	104	99	116
	80	107	108	111	111	105	102	98	94	112
	60	103	104	107	107	102	99	95	93	108
	50	103	104	106	106	101	98	95	94	107
	40	107	106	105	104	99	97	96	94	106

Outlet Sound Power, L_{Wo}

RPM	%WOV	1	2	3	4	5	6	7	8	L_{Wo}A
400	100	83	81	75	71	67	56	49	45	73
	80	79	78	73	68	61	51	45	43	70
	60	74	74	67	67	61	51	47	44	68
	50	75	73	65	66	61	51	47	44	67
	40	78	76	66	66	63	53	48	44	68
600	100	98	93	81	77	76	69	60	54	82
	80	98	92	80	74	72	63	55	50	80
	60	91	85	74	72	70	61	57	53	76
	50	88	83	72	71	70	62	57	54	74
	40	89	84	72	70	70	62	58	54	75
800	100	94	98	87	83	82	77	70	62	88
	80	91	95	84	79	78	73	66	60	84
	60	89	91	80	76	75	68	64	61	80
	50	89	87	78	75	74	68	64	61	79
	40	91	89	78	74	74	69	66	62	80
1200	100	101	101	102	95	93	89	85	77	99
	80	97	97	98	91	89	84	78	72	95
	60	94	94	95	87	85	79	76	73	91
	50	94	94	94	85	83	79	76	73	90
	40	96	94	93	85	83	79	77	74	89
1700	100	109	107	107	105	103	99	97	88	108
	80	105	103	104	101	99	94	90	83	104
	60	102	100	101	97	95	89	86	82	100
	50	102	100	100	95	94	88	86	82	98
	40	106	102	97	93	91	87	86	83	97
2338	100	114	115	114	113	111	108	105	99	116
	80	111	111	110	109	107	103	99	93	112
	60	107	108	108	106	103	99	94	90	108
	50	107	108	107	104	101	97	94	91	107
	40	112	111	106	102	99	96	93	91	105

The sound power level ratings shown are in decibels, referred to 10^{-12} watts calculated per AMCA Standard 301. Values shown are for inlet L_{Wi}, L_{Wi}A and outlet L_{Wo}, L_{Wo}A sound power levels for Installation Type B: free inlet, ducted outlet. Outlet ratings include the effects of duct end correction. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.

30 BIDW

Wheel Diameter = 30 in.
Outlet Area = 9.31 ft.^{2}
Tip Speed = 7.85 x RPM
Maximum BHP = (RPM/422)^3

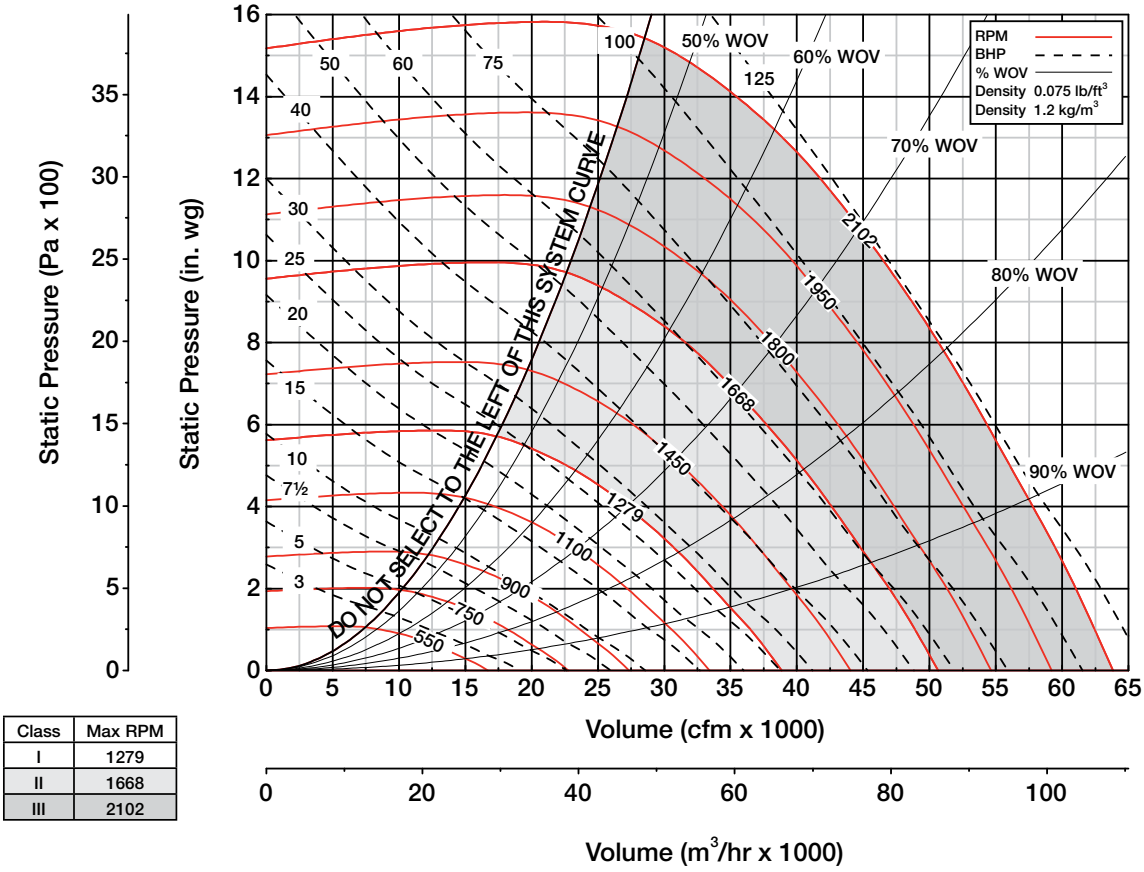
Minimum Starting HP = 1½
Maximum RPM Class I = 1279
Maximum RPM Class II = 1668
Maximum RPM Class III = 2102

CFM	OV	STATIC PRESSURE (in. wg)																			
		0.25		0.50		0.75		1.00		1.25		1.50		1.75		2.00		2.25		2.50	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
7500	805	335	0.50	410	0.88	478	1.31	538	1.78												
9000	966	373	0.69	439	1.11	499	1.59	556	2.10	609	2.65	657	3.22								
10500	1127	412	0.92	472	1.40	527	1.92	579	2.47	627	3.05	674	3.68	718	4.33	759	5.00				
12000	1288	454	1.23	508	1.75	558	2.31	605	2.91	651	3.54	694	4.20	736	4.89	777	5.62	816	6.36	852	7.11
13500	1450	497	1.60	547	2.17	593	2.78	637	3.42	679	4.10	720	4.81	759	5.54	796	6.29	834	7.08	870	7.89
15000	1611	542	2.05	587	2.67	630	3.33	671	4.02	710	4.74	748	5.49	784	6.27	821	7.07	855	7.89	888	8.73
16500	1772	586	2.57	629	3.27	669	3.97	707	4.71	744	5.48	780	6.27	814	7.09	847	7.93	881	8.81	913	9.70
18000	1933	632	3.18	672	3.96	709	4.71	746	5.50	780	6.32	814	7.16	846	8.02	878	8.91	908	9.82	939	10.8
19500	2094	678	3.91	716	4.76	751	5.56	785	6.39	817	7.26	849	8.15	880	9.06	910	9.99	940	11.0	969	11.9
21000	2255	725	4.76	760	5.65	794	6.53	825	7.40	856	8.32	886	9.26	916	10.2	945	11.2	972	12.2	1000	13.2
22500	2416	772	5.73	804	6.65	837	7.63	867	8.55	896	9.49	925	10.5	953	11.5	980	12.5	1007	13.6	1033	14.6
24000	2577	820	6.83	849	7.78	880	8.85	909	9.83	937	10.8	964	11.9	991	12.9	1017	14.0	1043	15.1	1068	16.2
25500	2738	868	8.06	895	9.04	924	10.2	952	11.3	979	12.3	1005	13.4	1030	14.5	1056	15.6	1080	16.8	1104	17.9
27000	2900	916	9.45	941	10.5	969	11.6	995	12.8	1021	13.9	1046	15.0	1070	16.2	1095	17.4	1119	18.6	1142	19.8
28500	3061	964	11.0	988	12.1	1014	13.3	1039	14.5	1064	15.7	1088	16.9	1112	18.1	1134	19.3	1158	20.5	1180	21.8
30000	3222	1012	12.7	1035	13.8	1059	15.0	1084	16.4	1108	17.7	1131	18.9	1154	20.1	1175	21.4	1197	22.6	1219	24.0

CFM	OV	STATIC PRESSURE (in. wg)																			
		2.50		3.00		3.50		4.00		4.50		5.00		5.50		6.00		6.50		7.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
14000	1503	876	8.17	944	9.88	1006	11.7														
15400	1654	895	8.98	960	10.8	1023	12.7	1081	14.6												
16800	1804	918	9.90	979	11.8	1039	13.7	1097	15.7	1152	17.8	1203	20.0								
18200	1954	942	10.9	1003	12.9	1059	14.9	1114	17.0	1168	19.1	1220	21.4	1269	23.7	1316	26.0				
19600	2105	971	12.0	1027	14.0	1082	16.1	1134	18.3	1185	20.5	1237	22.9	1286	25.3	1332	27.7	1377	30.2	1421	32.7
21000	2255	1000	13.2	1054	15.3	1106	17.5	1158	19.8	1206	22.1	1254	24.4	1302	26.9	1349	29.5	1394	32.0	1437	34.6
22400	2406	1031	14.5	1083	16.7	1132	19.0	1181	21.3	1230	23.7	1276	26.2	1320	28.7	1366	31.3	1411	34.0	1454	36.7
23800	2556	1064	16.0	1113	18.3	1162	20.6	1207	23.0	1254	25.5	1300	28.1	1344	30.7	1386	33.3	1428	36.0	1471	38.8
25200	2706	1097	17.6	1145	19.9	1191	22.4	1237	24.9	1280	27.4	1324	30.0	1367	32.7	1409	35.5	1449	38.3	1488	41.1
26600	2857	1131	19.3	1178	21.7	1222	24.2	1266	26.8	1309	29.5	1350	32.1	1391	34.9	1433	37.8	1473	40.7	1512	43.6
28000	3007	1167	21.1	1211	23.7	1255	26.3	1297	28.9	1339	31.6	1379	34.4	1418	37.3	1457	40.2	1497	43.2	1535	46.2
29400	3157	1203	23.1	1246	25.7	1288	28.4	1329	31.2	1369	34.0	1409	36.9	1447	39.8	1484	42.8	1521	45.8	1559	48.9
30800	3308	1240	25.2	1282	28.0	1322	30.7	1362	33.6	1401	36.5	1439	39.4	1477	42.5	1513	45.5	1549	48.6	1583	51.8
32200	3458	1277	27.5	1318	30.3	1357	33.2	1395	36.2	1434	39.2	1470	42.2	1507	45.3	1543	48.4	1578	51.6	1612	54.9
33600	3609	1316	30.0	1355	32.9	1393	35.9	1430	38.9	1467	42.0	1503	45.1	1538	48.3	1573	51.5	1608	54.8	1642	58.2
35000	3759	1355	32.6	1392	35.6	1430	38.7	1466	41.8	1501	45.0	1536	48.2	1571	51.5	1605	54.8	1638	58.2	1671	61.6

CFM	OV	STATIC PRESSURE (in. wg)																			
		7.00		7.50		8.00		8.50		9.00		10.00		11.00		12.00		13.00		14.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
22000	2363	1449	36.1	1491	38.8	1531	41.6	1570	44.4	1608	47.2										
23800	2556	1471	38.8	1512	41.7	1552	44.6	1592	47.5	1630	50.5	1702	56.5								
25600	2749	1495	41.8	1534	44.7	1574	47.7	1613	50.8	1651	53.9	1724	60.2	1793	66.6	1859	73.2				
27400	2943	1525	45.0	1562	48.1	1599	51.1	1635	54.2	1673	57.4	1745	64.0	1814	70.7	1881	77.5	1944	84.5	2006	91.5
29200	3136	1556	48.5	1593	51.7	1629	54.8	1664	58.1	1698	61.3	1767	68.0	1836	75.0	1902	82.0	1966	89.2	2027	96.6
31000	3329	1587	52.2	1624	55.5	1659	58.8	1694	62.1	1728	65.5	1794	72.3	1858	79.4	1924	86.7	1987	94.2	2048	102
32800	3523	1625	56.3	1658	59.6	1690	63.0	1725	66.4	1759	69.9	1824	77.1	1886	84.3	1946	91.6	2009	99.3	2070	107
34600	3716	1663	60.6	1695	64.0	1727	67.5	1758	71.0	1790	74.6	1854	82.0	1916	89.5	1976	97.1	2033	105	2091	113
36400	3909	1701	65.2	1734	68.8	1765	72.4	1796	76.0	1826	79.7	1885	87.2	1947	94.9	2006	103	2063	111		
38200	4103	1742	70.2	1772	73.8	1803	77.5	1834	81.3	1864	85.1	1921	92.8	1978	101	2036	109	2093	117		
40000	4296	1784	75.5	1814	79.2	1843	83.0	1872	86.9	1902	90.8	1959	98.8	2013	107	2067	115				
41800	4489	1827	81.1	1856	85.0	1885	88.9	1913	92.9	1941	96.8	1997	105	2051	113						
43600	4683	1870	87.1	1899	91.1	1927	95.2	1955	99.3	1982	103	2036	112	2089	120						
45400	4876	1916	93.5	1943	97.6	1970	102	1997	106	2024	110	2077	119								
47200	5069	1962	100	1989	104	2014	109	2040	113	2067	117										
49000	5263	2009	107	2035	112	2060	116	2085	121												

Performance certified is for model BIDW Arrangement 3, Installation Type B: free inlet, ducted outlet.
Performance ratings do not include the effects of appurtenances (accessories).
Power rating (BHP) does not include transmission losses.



Class	Max RPM
I	1279
II	1668
III	2102

% WOV = (CFM X 100) / (RPM X 30.4)

Sound Power [dB Ref 10^{-12} watts]

		Inlet Sound Power, L_{Wi}								
RPM	%WOV	1	2	3	4	5	6	7	8	L_{Wi}A
400	100	86	84	82	74	70	62	56	53	77
	80	85	83	79	71	67	59	54	52	75
	60	83	82	76	71	67	59	54	53	73
	50	82	81	74	71	67	59	55	53	73
	40	82	82	72	71	67	59	55	53	73
600	100	94	90	86	80	79	73	64	61	84
	80	93	87	84	78	77	70	62	60	82
	60	89	84	81	77	75	68	62	60	80
	50	89	84	80	76	75	68	63	60	79
	40	87	83	79	76	75	68	63	61	79
800	100	94	98	91	88	84	81	75	72	90
	80	91	95	88	86	81	77	72	71	88
	60	89	91	86	85	80	76	73	72	86
	50	89	90	85	85	80	76	74	72	86
	40	92	89	84	84	80	76	74	73	86
1100	100	98	99	102	95	92	89	85	82	99
	80	95	96	99	92	89	85	82	80	95
	60	92	92	94	89	86	82	81	80	92
	50	93	91	93	88	86	82	82	80	92
	40	94	91	92	87	85	82	82	80	91
1500	100	104	104	112	103	100	98	95	89	108
	80	101	100	108	100	96	93	89	85	103
	60	97	96	104	96	94	90	87	85	100
	50	97	96	102	95	93	90	88	86	99
	40	100	97	100	94	92	90	88	87	98
2102	100	112	111	118	114	109	107	104	99	116
	80	109	108	113	111	105	102	99	95	112
	60	105	104	109	107	102	99	96	93	108
	50	105	104	108	105	101	98	96	94	107
	40	109	106	107	104	100	98	96	95	107

		Outlet Sound Power, L_{Wo}								
RPM	%WOV	1	2	3	4	5	6	7	8	L_{Wo}A
400	100	86	84	78	74	70	59	52	48	76
	80	83	81	76	71	65	54	48	47	73
	60	77	77	70	71	64	54	50	48	71
	50	78	76	68	70	64	54	50	47	70
	40	82	79	69	69	66	56	51	48	71
600	100	101	96	84	80	79	72	63	57	85
	80	101	95	83	78	75	66	59	53	83
	60	95	88	77	75	73	65	60	56	79
	50	91	86	75	74	73	65	61	57	78
	40	93	87	75	73	73	65	61	57	78
800	100	97	101	90	87	85	81	73	66	91
	80	94	98	87	83	81	76	69	63	87
	60	92	94	83	79	78	71	67	64	84
	50	92	91	82	78	77	71	68	64	82
	40	95	92	81	77	77	73	69	65	83
1100	100	102	103	102	96	94	90	85	77	100
	80	98	99	98	92	90	84	79	72	95
	60	95	96	95	88	85	80	77	74	92
	50	95	95	94	87	84	80	77	74	91
	40	97	95	93	86	83	80	78	74	90
1500	100	109	108	107	105	103	99	96	87	108
	80	105	104	104	101	99	94	89	82	103
	60	102	101	101	97	95	89	86	81	100
	50	102	101	99	95	93	88	86	81	98
	40	106	102	97	93	91	87	86	83	97
2102	100	116	116	115	113	111	108	105	99	116
	80	112	112	112	110	107	103	99	93	112
	60	108	109	109	106	103	99	95	91	108
	50	108	108	107	104	102	97	94	91	107
	40	113	111	106	102	99	96	94	92	106

The sound power level ratings shown are in decibels, referred to 10^{-12} watts calculated per AMCA Standard 301. Values shown are for inlet L_{Wi}, L_{Wi}A and outlet L_{Wo}, L_{Wo}A sound power levels for Installation Type B: free inlet, ducted outlet. Outlet ratings include the effects of duct end correction. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.

33 BIDW

Wheel Diameter = 33 in.
Outlet Area = 11.27 ft.^{2}
Tip Speed = 8.64 x RPM
Maximum BHP = (RPM/360)^3

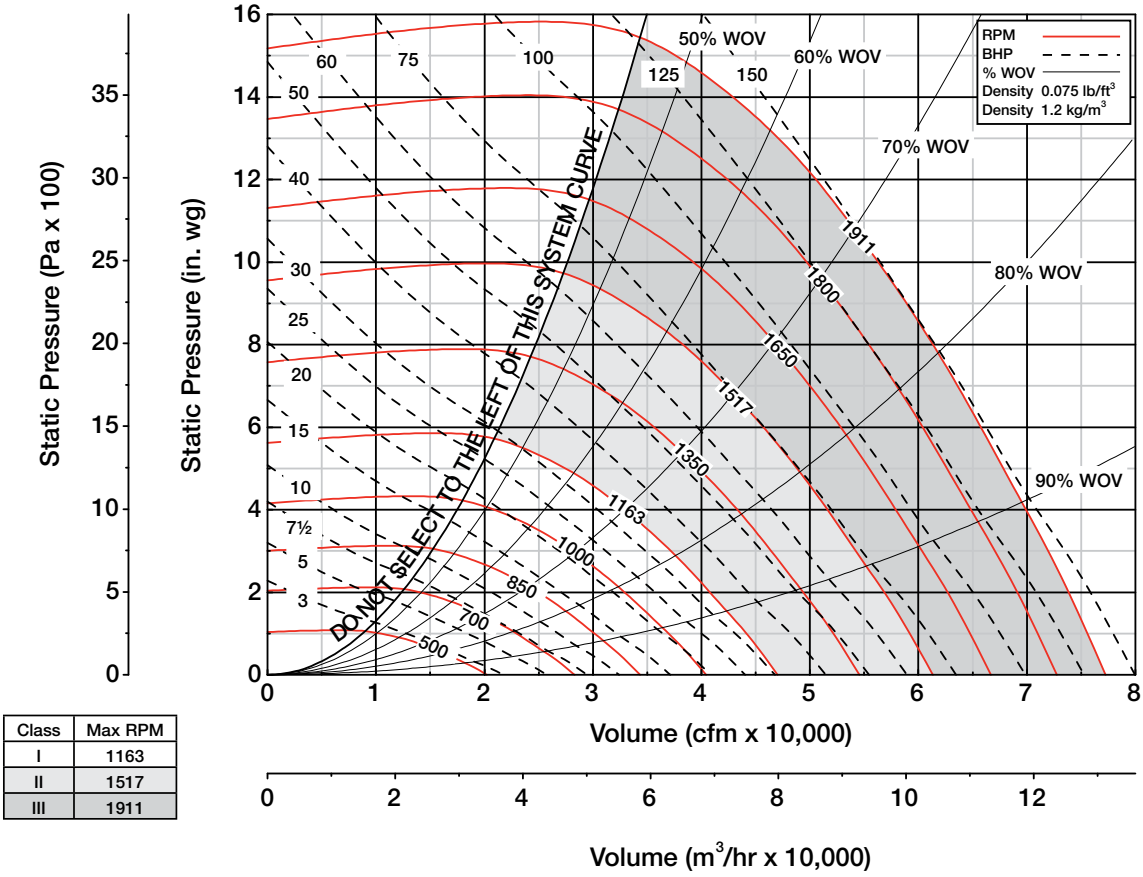
Minimum Starting HP = 2
Maximum RPM Class I = 1163
Maximum RPM Class II = 1517
Maximum RPM Class III = 1911

CFM	OV	STATIC PRESSURE (in. wg)																			
		0.25		0.50		0.75		1.00		1.25		1.50		1.75		2.00		2.25		2.50	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
9000	798	304	0.60	372	1.06	433	1.58	488	2.14												
10800	958	337	0.82	397	1.33	453	1.90	504	2.52	552	3.18	596	3.87								
12600	1118	373	1.10	427	1.67	477	2.29	525	2.96	569	3.67	612	4.42	652	5.20	689	6.00				
14400	1277	410	1.46	460	2.09	506	2.76	549	3.48	591	4.25	630	5.04	668	5.87	705	6.74	740	7.63	774	8.55
16200	1437	449	1.90	495	2.58	537	3.32	577	4.09	615	4.90	652	5.76	688	6.64	722	7.54	757	8.50	790	9.48
18000	1597	489	2.43	531	3.18	570	3.97	608	4.81	643	5.67	678	6.57	711	7.50	744	8.47	776	9.46	806	10.5
19800	1756	529	3.05	569	3.88	605	4.73	640	5.62	674	6.55	706	7.50	738	8.49	767	9.49	799	10.6	828	11.6
21600	1916	570	3.77	607	4.71	641	5.60	674	6.55	706	7.54	736	8.55	766	9.59	795	10.7	823	11.8	851	12.9
23400	2076	612	4.63	646	5.65	679	6.61	709	7.61	739	8.66	768	9.73	797	10.8	824	11.9	851	13.1	877	14.3
25200	2236	654	5.63	686	6.71	717	7.76	746	8.80	774	9.91	802	11.0	829	12.2	855	13.4	880	14.6	906	15.8
27000	2395	697	6.78	726	7.89	756	9.06	783	10.2	810	11.3	836	12.5	862	13.7	887	15.0	912	16.2	936	17.5
28800	2555	740	8.08	767	9.22	795	10.5	821	11.7	847	12.9	872	14.1	896	15.4	920	16.7	944	18.0	967	19.4
30600	2715	783	9.54	808	10.7	834	12.1	860	13.4	884	14.6	908	15.9	932	17.2	955	18.6	977	20.0	999	21.4
32400	2874	826	11.2	849	12.4	875	13.8	899	15.2	923	16.5	945	17.9	967	19.2	990	20.7	1012	22.1	1032	23.6
34200	3034	869	13.0	891	14.3	915	15.7	939	17.2	961	18.7	983	20.1	1004	21.5	1025	22.9	1047	24.4	1067	26.0
36000	3194	913	15.0	934	16.4	956	17.8	978	19.4	1000	21.0	1022	22.4	1042	23.9	1062	25.4	1082	27.0	1102	28.6

CFM	OV	STATIC PRESSURE (in. wg)																			
		2.50		3.00		3.50		4.00		4.50		5.00		5.50		6.00		6.50		7.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
17000	1508	797	9.91	858	12.0	915	14.1														
18800	1668	816	11.0	875	13.1	931	15.4	984	17.8	1033	20.2										
20600	1827	838	12.2	894	14.4	947	16.8	1000	19.3	1049	21.8	1096	24.4	1141	27.1						
22400	1987	862	13.5	916	15.9	967	18.3	1016	20.9	1066	23.5	1112	26.3	1157	29.0	1199	31.9	1240	34.8		
24200	2147	890	14.9	939	17.4	990	20.0	1037	22.6	1082	25.3	1129	28.2	1173	31.1	1215	34.1	1256	37.1	1296	40.2
26000	2307	919	16.5	967	19.1	1013	21.8	1060	24.6	1104	27.4	1146	30.3	1189	33.3	1232	36.4	1272	39.6	1312	42.8
27800	2466	949	18.3	996	21.0	1040	23.8	1083	26.6	1127	29.6	1169	32.6	1209	35.7	1248	38.8	1289	42.1	1328	45.5
29600	2626	981	20.2	1025	23.0	1069	25.9	1110	28.9	1150	31.9	1192	35.1	1232	38.3	1270	41.5	1306	44.8	1344	48.3
31400	2786	1013	22.3	1057	25.3	1098	28.2	1139	31.3	1177	34.5	1215	37.7	1255	41.0	1292	44.4	1329	47.8	1364	51.3
33200	2945	1048	24.6	1089	27.7	1129	30.8	1168	33.9	1206	37.2	1243	40.5	1278	43.9	1316	47.4	1352	51.0	1387	54.6
35000	3105	1083	27.1	1122	30.3	1161	33.5	1198	36.8	1235	40.1	1271	43.6	1306	47.1	1340	50.6	1375	54.3	1410	58.0
36800	3265	1118	29.8	1156	33.1	1193	36.4	1230	39.8	1265	43.3	1300	46.8	1335	50.5	1368	54.1	1401	57.9	1433	61.7
38600	3425	1154	32.6	1191	36.1	1227	39.5	1262	43.1	1297	46.7	1330	50.3	1364	54.0	1397	57.8	1429	61.7	1460	65.6
40400	3584	1191	35.8	1227	39.3	1262	42.9	1295	46.6	1329	50.3	1362	54.0	1394	57.9	1426	61.8	1458	65.7	1488	69.8
42200	3744	1228	39.2	1262	42.7	1297	46.5	1330	50.3	1361	54.1	1394	58.0	1425	62.0	1456	65.9	1486	70.0	1517	74.2
44000	3904	1266	42.9	1299	46.5	1332	50.3	1364	54.2	1396	58.2	1426	62.2	1457	66.3	1487	70.4	1517	74.6	1546	78.8

CFM	OV	STATIC PRESSURE (in. wg)																			
		7.00		7.50		8.00		8.50		9.00		10.00		11.00		12.00		13.00		14.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
24000	2129	1294	39.9	1332	43.0																
26400	2342	1315	43.4	1353	46.6	1390	50.0	1425	53.3	1460	56.7										
28800	2555	1337	47.0	1375	50.5	1411	54.0	1447	57.5	1481	61.1	1548	68.4								
31200	2768	1362	50.9	1397	54.5	1433	58.2	1468	61.9	1503	65.6	1569	73.3	1632	81.1	1692	89.0				
33600	2981	1392	55.3	1426	59.0	1459	62.7	1491	66.5	1525	70.4	1591	78.4	1653	86.6	1714	94.9	1771	103	1827	112
36000	3194	1423	60.0	1457	63.9	1489	67.8	1521	71.7	1552	75.7	1612	83.8	1675	92.3	1735	101	1793	110	1848	119
38400	3407	1457	65.1	1487	69.1	1520	73.2	1552	77.3	1582	81.4	1642	89.8	1698	98.4	1757	107	1814	117	1870	126
40800	3620	1495	70.7	1524	74.8	1553	78.9	1583	83.1	1613	87.5	1672	96.3	1728	105	1783	114	1836	124	1892	133
43200	3833	1533	76.7	1563	81.0	1591	85.3	1619	89.6	1647	94.0	1703	103	1759	112	1813	122	1865	131		
45600	4046	1573	83.1	1601	87.5	1630	92.0	1657	96.5	1684	101	1737	110	1790	120	1843	130	1895	139		
48000	4259	1615	90.1	1642	94.6	1669	99.2	1696	104	1723	109	1774	118	1824	128	1874	138				
50400	4472	1658	97.6	1684	102	1711	107	1736	112	1761	117	1813	127	1862	137	1909	147				
52800	4685	1701	106	1727	110	1753	115	1778	120	1803	125	1851	135	1900	146						
55200	4897	1747	114	1771	119	1796	124	1821	129	1845	134	1892	145								
57600	5110	1793	123	1817	128	1840	134	1863	139	1888	144										
60000	5323	1840	133	1864	138	1887	144	1909	149												

Performance certified is for model BIDW Arrangement 3, Installation Type B: free inlet, ducted outlet.
Performance ratings do not include the effects of appurtenances (accessories).
Power rating (BHP) does not include transmission losses.



Class	Max RPM
I	1163
II	1517
III	1911

% WOV = (CFM X 100) / (RPM X 40.4)

Sound Power [dB Ref 10^{-12} watts]

Inlet Sound Power, L_{Wi}										
RPM	%WOV	1	2	3	4	5	6	7	8	L_{Wi}A
350	100	86	83	80	73	68	61	55	52	76
	80	85	82	77	70	66	58	54	51	73
	60	82	81	75	70	66	58	54	52	72
	50	82	80	73	70	66	58	54	52	72
	40	82	80	72	70	66	58	54	52	72
500	100	94	87	83	78	76	69	62	59	81
	80	93	85	81	77	74	67	61	58	79
	60	90	82	79	75	72	65	60	58	78
	50	89	81	78	75	72	65	61	58	77
	40	87	80	77	74	72	66	61	59	77
700	100	95	96	91	87	84	80	75	71	90
	80	92	93	88	85	81	76	72	71	87
	60	90	90	86	84	79	75	73	72	86
	50	89	89	85	84	79	75	73	72	86
	40	91	88	84	84	79	76	74	72	85
1000	100	99	101	102	96	92	90	86	82	99
	80	95	98	99	92	89	86	83	80	96
	60	93	94	94	89	86	83	82	80	93
	50	94	93	93	88	86	83	82	81	92
	40	94	92	92	88	86	83	82	81	92
1400	100	105	106	113	104	101	100	96	90	108
	80	103	102	108	101	97	94	90	86	104
	60	98	99	104	97	95	91	88	86	101
	50	99	98	103	96	94	91	89	87	100
	40	101	99	101	95	93	91	90	88	99
1911	100	113	111	120	114	109	107	105	99	117
	80	111	108	116	110	106	103	99	95	113
	60	107	104	111	106	103	99	96	94	109
	50	107	104	110	105	102	99	97	95	108
	40	110	106	108	104	101	98	97	95	107

Outlet Sound Power, L_{Wo}										
RPM	%WOV	1	2	3	4	5	6	7	8	L_{Wo}A
350	100	85	83	77	73	68	58	51	47	75
	80	82	80	75	70	63	53	48	46	72
	60	77	75	70	69	62	53	49	47	70
	50	78	75	68	69	62	54	50	47	69
	40	81	77	69	68	64	55	50	47	70
500	100	101	92	82	79	77	69	61	54	83
	80	101	91	80	76	72	63	56	51	81
	60	94	84	76	74	70	62	58	54	77
	50	91	82	74	73	70	63	59	55	75
	40	92	83	73	72	70	63	59	55	75
700	100	98	99	89	86	84	79	72	64	90
	80	95	96	86	83	80	74	68	62	86
	60	92	92	82	79	77	71	67	64	83
	50	92	89	81	78	76	70	67	64	81
	40	94	90	81	78	76	72	68	65	82
1000	100	103	103	102	97	94	90	85	77	100
	80	99	100	98	93	90	84	79	72	96
	60	96	97	95	89	85	81	77	74	92
	50	96	96	94	87	84	80	77	74	91
	40	98	95	92	86	84	80	78	75	90
1400	100	110	109	108	106	104	101	96	88	109
	80	107	105	105	102	99	95	90	83	104
	60	103	102	102	98	95	90	87	82	101
	50	103	102	100	97	94	89	87	82	99
	40	107	103	98	94	92	88	87	84	98
1911	100	117	116	116	114	112	109	106	98	117
	80	114	112	113	110	108	103	99	93	113
	60	110	109	110	106	104	99	95	91	109
	50	110	109	108	105	102	98	95	91	107
	40	114	111	106	102	100	96	95	92	106

The sound power level ratings shown are in decibels, referred to 10^{-12} watts calculated per AMCA Standard 301. Values shown are for inlet L_{Wi}, L_{Wi}A and outlet L_{Wo}, L_{Wo}A sound power levels for Installation Type B: free inlet, ducted outlet. Outlet ratings include the effects of duct end correction. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.

36 BIDW

Wheel Diameter = 36½ in.
Outlet Area = 13.79 ft.^{2}
Tip Speed = 9.56 x RPM
Maximum BHP = (RPM/304)^3

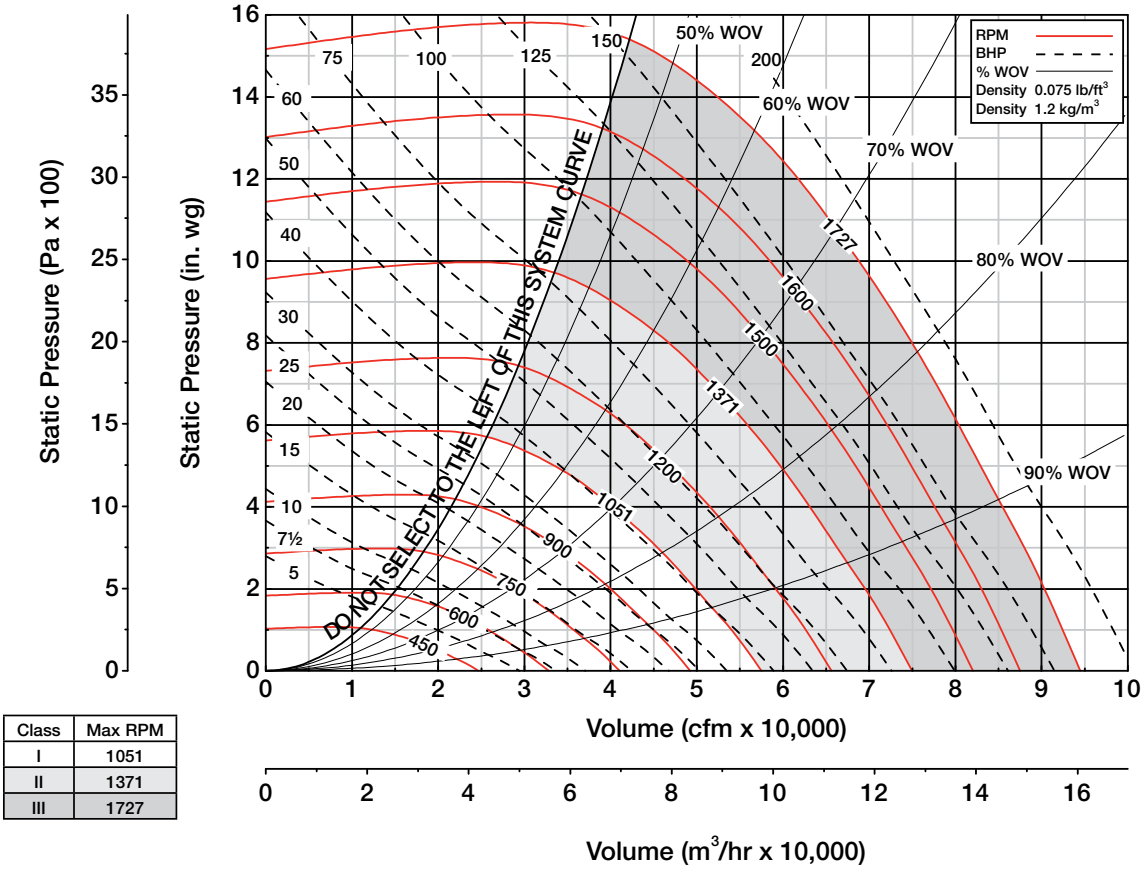
Minimum Starting HP = 2
Maximum RPM Class I = 1051
Maximum RPM Class II = 1371
Maximum RPM Class III = 1727

CFM	OV	STATIC PRESSURE (in. wg)																			
		0.25		0.50		0.75		1.00		1.25		1.50		1.75		2.00		2.25		2.50	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
10500	761	268	0.68	331	1.23	388	1.85														
12600	913	296	0.92	352	1.53	404	2.21	452	2.95	495	3.73										
14700	1065	326	1.23	377	1.90	423	2.64	468	3.44	509	4.29	549	5.18	585	6.11						
16800	1218	358	1.61	404	2.35	447	3.16	487	4.01	526	4.92	562	5.87	599	6.87	632	7.91	664	8.97		
18900	1370	391	2.09	434	2.89	473	3.76	511	4.68	546	5.65	581	6.67	614	7.71	646	8.81	678	9.95	708	11.1
21000	1522	425	2.66	464	3.53	501	4.47	536	5.46	570	6.49	601	7.56	633	8.68	663	9.83	692	11.0	722	12.2
23100	1675	460	3.32	497	4.30	531	5.30	563	6.35	595	7.44	625	8.58	654	9.75	683	11.0	711	12.2	738	13.5
25200	1827	495	4.10	529	5.18	561	6.24	592	7.37	622	8.53	650	9.72	678	11.0	705	12.2	731	13.5	758	14.9
27300	1979	530	5.01	563	6.20	593	7.32	622	8.51	650	9.74	677	11.0	703	12.3	729	13.7	754	15.0	778	16.4
29400	2131	566	6.08	597	7.35	626	8.56	653	9.80	679	11.1	705	12.4	730	13.8	755	15.2	779	16.6	802	18.1
31500	2284	603	7.30	631	8.63	659	9.96	684	11.3	710	12.6	734	14.0	758	15.5	782	16.9	804	18.4	827	20.0
33600	2436	640	8.68	666	10.1	692	11.5	717	12.9	741	14.3	764	15.8	787	17.3	809	18.8	832	20.4	853	22.0
35700	2588	677	10.2	701	11.7	726	13.2	750	14.7	773	16.2	795	17.7	817	19.3	838	20.9	859	22.5	880	24.2
37800	2741	714	12.0	736	13.4	760	15.1	783	16.7	805	18.3	826	19.8	848	21.5	868	23.2	888	24.9	908	26.6
39900	2893	751	13.9	772	15.4	795	17.2	817	18.9	838	20.5	859	22.2	878	23.9	899	25.6	918	27.4	937	29.2
42000	3045	789	16.1	809	17.6	830	19.4	851	21.3	872	23.0	892	24.8	911	26.5	929	28.3	949	30.1	967	32.0

CFM	OV	STATIC PRESSURE (in. wg)																			
		2.50		3.00		3.50		4.00		4.50		5.00		5.50		6.00		6.50		7.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
21000	1522	722	12.2	777	14.8	829	17.4														
23200	1682	739	13.6	792	16.2	843	19.0	891	21.9	936	24.9										
25400	1841	760	15.0	810	17.8	858	20.7	905	23.8	950	26.9	992	30.1	1033	33.3						
27600	2001	781	16.6	830	19.6	876	22.6	920	25.7	965	29.0	1007	32.3	1047	35.8	1086	39.3	1123	42.8		
29800	2160	807	18.4	851	21.5	897	24.6	939	27.9	980	31.2	1022	34.7	1062	38.3	1100	42.0	1137	45.7	1173	49.5
32000	2320	833	20.4	876	23.6	918	26.8	960	30.3	1000	33.8	1038	37.3	1076	41.0	1115	44.8	1152	48.7	1187	52.6
34200	2480	861	22.6	902	25.9	943	29.3	981	32.8	1021	36.4	1058	40.2	1095	43.9	1130	47.8	1166	51.8	1202	55.9
36400	2639	889	25.0	929	28.4	968	31.9	1006	35.6	1042	39.3	1079	43.2	1115	47.1	1150	51.1	1183	55.1	1216	59.3
38600	2799	919	27.5	958	31.1	995	34.8	1032	38.6	1067	42.4	1100	46.4	1136	50.5	1170	54.6	1203	58.8	1235	63.1
40800	2958	950	30.4	986	34.1	1023	37.9	1058	41.8	1092	45.8	1126	49.9	1158	54.0	1191	58.3	1224	62.7	1256	67.1
43000	3118	981	33.4	1017	37.3	1052	41.3	1086	45.3	1119	49.4	1152	53.7	1183	58.0	1214	62.3	1245	66.8	1276	71.4
45200	3277	1013	36.7	1048	40.7	1081	44.8	1114	49.0	1146	53.3	1178	57.6	1209	62.1	1239	66.6	1268	71.2	1297	75.8
47400	3437	1046	40.2	1079	44.4	1112	48.7	1143	53.0	1175	57.4	1205	61.9	1235	66.5	1265	71.2	1294	75.9	1322	80.7
49600	3596	1079	44.1	1111	48.4	1143	52.8	1173	57.3	1203	61.9	1234	66.5	1262	71.2	1291	76.0	1320	80.8	1348	85.8
51800	3756	1113	48.3	1144	52.7	1175	57.2	1204	61.9	1233	66.6	1262	71.4	1291	76.2	1319	81.1	1346	86.1	1373	91.2
54000	3915	1148	52.8	1177	57.3	1207	61.9	1236	66.7	1264	71.6	1291	76.5	1320	81.5	1347	86.6	1374	91.7	1400	96.8

CFM	OV	STATIC PRESSURE (in. wg)																			
		7.00		7.50		8.00		8.50		9.00		10.00		11.00		12.00		13.00		14.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
33000	2393	1194	54.1	1228	58.2	1261	62.3	1293	66.5	1325	70.7										
35600	2581	1211	58.1	1245	62.3	1278	66.6	1310	71.0	1342	75.4	1402	84.4								
38200	2770	1231	62.4	1263	66.7	1296	71.2	1328	75.8	1359	80.4	1419	89.7	1476	99.3	1530	109				
40800	2958	1256	67.1	1286	71.6	1316	76.1	1345	80.7	1376	85.5	1436	95.3	1493	105	1547	115	1600	126	1650	136
43400	3147	1280	72.2	1311	76.8	1340	81.6	1369	86.3	1397	91.1	1453	101	1510	111	1564	122	1617	133	1667	143
46000	3335	1306	77.5	1335	82.4	1365	87.3	1393	92.2	1421	97.2	1475	107	1528	118	1582	129	1634	140	1684	151
48600	3524	1336	83.4	1363	88.3	1390	93.3	1418	98.5	1446	104	1499	114	1550	125	1599	136	1651	147	1701	159
51200	3712	1366	89.7	1393	94.8	1419	99.9	1445	105	1471	110	1524	121	1575	132	1623	144	1670	155	1719	167
53800	3901	1397	96.3	1424	102	1450	107	1475	112	1500	118	1549	129	1599	140	1648	152	1694	164		
56400	4089	1430	103	1455	109	1481	114	1505	120	1530	126	1577	137	1624	149	1672	161	1719	173		
59000	4278	1464	111	1488	117	1512	122	1536	128	1561	134	1607	146	1652	157	1697	170				
61600	4467	1498	119	1522	125	1546	131	1569	137	1592	142	1638	155	1683	167	1726	179				
64200	4655	1532	128	1556	134	1579	140	1602	146	1625	152	1669	164	1713	177						
66800	4844	1569	137	1591	143	1614	149	1636	155	1658	162	1701	174								
69400	5032	1606	147	1628	153	1649	159	1670	165	1692	172										
72000	5221	1643	157	1665	163	1686	170	1706	176												

Performance certified is for model BIDW Arrangement 3, Installation Type B: free inlet, ducted outlet.
Performance ratings do not include the effects of appurtenances (accessories).
Power rating (BHP) does not include transmission losses.



Class	Max RPM
I	1051
II	1371
III	1727

% WOV = (CFM X 100) / (RPM X 54.7)

Sound Power [dB Ref 10^{-12} watts]

		Inlet Sound Power, L_{Wi}								
RPM	%WOV	1	2	3	4	5	6	7	8	L_{Wi}A
300	100	82	81	79	75	71	65	61	55	77
	80	81	81	79	75	71	65	61	55	77
	60	80	81	78	74	71	65	60	55	76
	50	80	79	78	74	71	65	60	54	76
	40	81	80	78	74	71	65	61	55	76
400	100	87	83	82	77	75	69	61	56	80
	80	85	80	80	76	74	67	59	54	78
	60	81	78	79	76	73	67	59	54	78
	50	80	78	79	76	74	67	61	55	78
	40	81	78	78	75	74	67	60	56	78
600	100	98	95	91	85	85	78	73	68	89
	80	95	91	87	82	83	74	68	64	86
	60	93	88	85	81	82	73	68	65	85
	50	92	87	84	81	82	73	68	65	85
	40	93	87	85	80	82	74	69	66	85
800	100	98	105	98	92	92	87	82	77	97
	80	95	103	94	89	87	82	78	74	93
	60	93	99	90	85	84	78	75	73	90
	50	92	98	89	84	83	78	76	74	89
	40	92	97	88	84	83	78	76	74	88
1200	100	106	112	109	104	102	100	96	92	108
	80	102	110	106	100	98	93	89	86	104
	60	98	106	102	96	93	88	86	84	99
	50	99	105	102	96	93	88	86	84	99
	40	103	105	101	95	92	88	87	85	99
1727	100	112	118	122	114	111	109	106	102	118
	80	109	115	120	111	106	104	99	96	115
	60	105	111	116	106	102	99	95	93	110
	50	106	111	115	106	102	99	95	93	110
	40	110	114	115	106	101	99	95	94	110

		Outlet Sound Power, L_{Wo}								
RPM	%WOV	1	2	3	4	5	6	7	8	L_{Wo}A
300	100	83	80	74	71	68	60	52	43	73
	80	82	79	74	70	67	60	51	42	72
	60	78	76	72	68	66	58	49	41	70
	50	79	76	72	68	66	58	49	41	71
	40	77	75	71	68	66	58	49	41	70
400	100	98	86	79	76	73	67	58	52	79
	80	93	83	76	73	71	64	56	50	76
	60	93	83	74	71	68	63	54	49	75
	50	90	81	73	71	68	63	54	50	74
	40	89	80	73	71	68	63	55	50	74
600	100	107	100	89	86	83	78	71	65	90
	80	103	98	86	83	79	75	68	63	87
	60	99	92	82	79	76	71	65	61	83
	50	98	91	82	78	75	71	65	61	82
	40	99	92	81	77	75	71	66	62	82
800	100	103	107	96	94	91	87	81	75	97
	80	101	104	93	91	87	82	76	70	94
	60	97	101	89	87	83	77	73	70	90
	50	97	100	88	86	82	77	73	70	89
	40	98	100	87	85	81	77	74	70	89
1200	100	109	113	108	106	103	101	97	91	109
	80	107	110	104	102	99	95	91	84	104
	60	103	106	100	98	94	89	85	81	100
	50	103	105	99	97	93	88	86	81	99
	40	105	104	99	96	92	87	85	81	98
1727	100	116	119	122	114	112	110	107	102	119
	80	113	116	119	110	108	105	101	96	115
	60	110	113	116	106	104	100	95	91	111
	50	110	112	114	105	103	99	95	92	109
	40	111	113	113	104	102	98	94	92	109

The sound power level ratings shown are in decibels, referred to 10^{-12} watts calculated per AMCA Standard 301. Values shown are for inlet L_{Wi}, L_{Wi}A and outlet L_{Wo}, L_{Wo}A sound power levels for Installation Type B: free inlet, ducted outlet. Outlet ratings include the effects of duct end correction. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.

40 BIDW

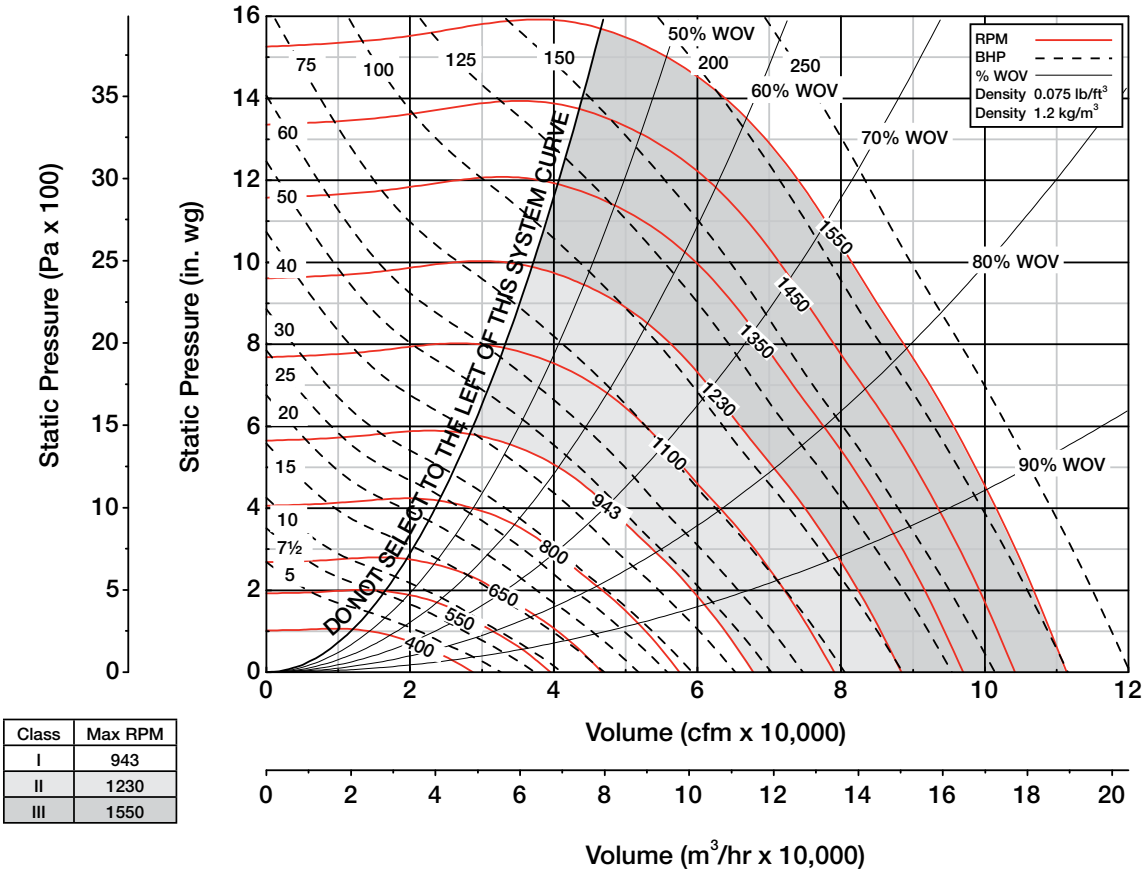
Wheel Diameter = 40¼ in.	Minimum Starting HP = 5
Outlet Area = 16.77 ft.^{2}	Maximum RPM Class I = 943
Tip Speed = 10.54 x RPM	Maximum RPM Class II = 1230
Maximum BHP = (RPM/259)^3	Maximum RPM Class III = 1550

CFM	OV	STATIC PRESSURE (in. wg)																			
		0.25		0.50		0.75		1.00		1.25		1.50		1.75		2.00		2.25		2.50	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
13000	775	246	0.85	299	1.48	349	2.21	395	3.03												
15900	948	276	1.21	323	1.92	366	2.71	408	3.60	446	4.54	484	5.57	520	6.66						
18800	1121	308	1.67	352	2.50	390	3.36	426	4.29	462	5.32	497	6.39	528	7.51	560	8.72	592	9.98	621	11.3
21700	1293	342	2.28	382	3.21	418	4.17	450	5.17	482	6.24	513	7.37	544	8.59	573	9.84	601	11.1	628	12.5
24600	1466	377	3.04	413	4.04	448	5.15	478	6.23	507	7.36	535	8.57	562	9.80	590	11.1	617	12.5	643	13.9
27500	1639	414	3.98	446	5.08	478	6.26	508	7.50	534	8.71	560	9.95	586	11.3	610	12.7	634	14.1	659	15.6
30400	1812	451	5.12	480	6.31	509	7.56	538	8.92	564	10.3	588	11.6	611	13.0	635	14.4	658	15.9	680	17.4
33300	1985	489	6.47	515	7.76	542	9.11	568	10.5	594	12.0	618	13.5	640	15.0	661	16.5	682	18.0	704	19.6
36200	2158	527	8.07	552	9.45	576	10.9	600	12.4	624	14.0	648	15.6	670	17.2	690	18.8	710	20.4	729	22.0
39100	2331	566	9.94	589	11.4	611	12.9	634	14.5	655	16.2	678	17.9	700	19.7	720	21.4	740	23.1	758	24.8
42000	2504	605	12.1	626	13.6	647	15.3	668	16.9	689	18.7	709	20.4	730	22.3	750	24.2	769	26.1	788	27.9
44900	2677	644	14.6	663	16.2	683	17.9	702	19.7	722	21.5	742	23.3	761	25.3	780	27.3	799	29.3	817	31.3
47800	2850	683	17.3	701	19.0	720	20.9	738	22.7	756	24.6	775	26.6	793	28.6	811	30.6	830	32.8	847	34.9
50700	3023	722	20.5	739	22.2	757	24.2	774	26.1	791	28.1	809	30.2	826	32.2	843	34.4	860	36.5	878	38.8
53600	3196	762	24.0	777	25.8	794	27.8	811	29.9	827	32.0	843	34.1	860	36.3	877	38.5	892	40.7	909	43.0
56500	3369	801	27.9	816	29.8	832	31.9	848	34.0	863	36.2	878	38.4	895	40.7	910	43.0	926	45.3	941	47.7

CFM	OV	STATIC PRESSURE (in. wg)																			
		2.50		3.00		3.50		4.00		4.50		5.00		5.50		6.00		6.50		7.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
23500	1401	637	13.4	688	16.3	738	19.4														
26400	1574	653	14.9	702	18.0	746	21.1	792	24.5	836	28.1	878	31.8								
29300	1747	671	16.7	718	19.9	762	23.2	804	26.7	844	30.3	885	34.1	925	38.1	963	42.1				
32200	1920	695	18.8	736	22.0	778	25.5	820	29.1	859	32.9	895	36.7	932	40.7	970	44.9	1006	49.3	1041	53.7
35100	2093	719	21.1	760	24.5	797	28.0	836	31.8	875	35.7	911	39.7	946	43.8	980	48.0	1014	52.4	1049	57.0
38000	2265	747	23.7	784	27.3	821	31.0	856	34.8	891	38.7	928	43.0	963	47.3	996	51.7	1028	56.1	1059	60.6
40900	2438	776	26.7	811	30.4	846	34.2	880	38.2	913	42.3	944	46.4	979	50.9	1012	55.5	1044	60.2	1075	64.9
43800	2611	806	30.0	840	33.9	873	37.8	905	41.9	937	46.1	968	50.5	998	54.9	1028	59.5	1060	64.4	1091	69.3
46700	2784	836	33.5	870	37.7	902	41.8	932	46.0	962	50.3	992	54.9	1022	59.5	1050	64.2	1077	68.9	1107	74.0
49600	2957	866	37.3	900	41.8	931	46.1	961	50.5	989	55.0	1017	59.6	1046	64.4	1074	69.3	1101	74.2	1127	79.2
52500	3130	897	41.4	930	46.1	961	50.8	990	55.4	1018	60.1	1045	64.8	1071	69.6	1099	74.7	1125	79.8	1151	85.0
55400	3303	928	45.9	960	50.8	991	55.8	1020	60.7	1047	65.6	1073	70.5	1099	75.4	1124	80.4	1150	85.8	1176	91.2
58300	3476	961	50.8	991	55.8	1021	61.0	1050	66.3	1077	71.5	1103	76.6	1128	81.8	1152	87.0	1176	92.2	1200	97.7
61200	3649	995	56.2	1023	61.3	1052	66.7	1080	72.2	1107	77.7	1132	83.1	1157	88.5	1181	93.9	1204	99.4	1227	105
64100	3822	1029	62.0	1056	67.3	1083	72.8	1110	78.5	1137	84.2	1162	90.0	1187	95.7	1210	101	1233	107	1256	113
67000	3995	1063	68.3	1089	73.8	1115	79.4	1141	85.2	1167	91.2	1192	97.2	1217	103	1240	109	1263	115	1285	121

CFM	OV	STATIC PRESSURE (in. wg)																			
		7.00		7.50		8.00		8.50		9.00		10.00		11.00		12.00		13.00		14.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
40000	2385	1070	63.5	1100	68.3	1129	73.1	1159	78.2	1190	83.4	1249	94.1	1305	105						
43000	2564	1087	68.1	1116	73.0	1145	78.0	1173	83.1	1200	88.2	1256	99.1	1312	111	1366	122	1417	134		
46000	2742	1103	72.9	1133	78.0	1162	83.3	1190	88.5	1217	93.9	1269	105	1320	116	1373	128	1425	140	1474	153
49000	2921	1122	78.0	1150	83.3	1179	88.7	1207	94.2	1234	99.8	1286	111	1335	123	1383	134	1433	147	1482	160
52000	3100	1147	84.0	1172	89.2	1197	94.5	1223	100	1250	106	1302	118	1352	130	1399	142	1445	154	1490	167
55000	3279	1172	90.3	1197	95.8	1221	101	1245	107	1268	112	1319	125	1368	137	1416	149	1461	162	1505	175
58000	3458	1198	97.1	1222	103	1246	108	1270	114	1293	120	1337	132	1385	144	1432	157	1478	171	1521	184
61000	3637	1225	104	1248	110	1272	116	1295	122	1318	128	1362	140	1403	152	1449	166	1494	179	1538	193
64000	3816	1255	112	1276	118	1298	124	1321	130	1343	136	1387	149	1428	162	1468	175	1511	188		
67000	3995	1285	121	1306	127	1327	133	1348	139	1369	145	1412	158	1453	171	1493	185	1531	198		
70000	4174	1315	130	1337	136	1357	142	1377	149	1397	155	1437	168	1479	182	1518	195				
73000	4353	1346	140	1367	146	1387	152	1408	159	1427	165	1465	179	1504	192	1543	206				
76000	4531	1377	150	1398	156	1418	163	1438	170	1457	176	1495	190	1531	204						
79000	4710	1408	160	1429	167	1449	174	1469	181	1488	188	1525	202								
82000	4889	1439	171	1460	178	1480	186	1499	193	1518	200										
85000	5068	1471	182	1491	190	1511	198	1530	205	1549	213										

Performance certified is for model BIDW Arrangement 3, Installation Type B: free inlet, ducted outlet.
Performance ratings do not include the effects of appurtenances (accessories).
Power rating (BHP) does not include transmission losses.



Class	Max RPM
I	943
II	1230
III	1550

% WOV = (CFM X 100) / (RPM X 71.9)

Sound Power [dB Ref 10^{-12} watts]

RPM	%WOV	Inlet Sound Power, L_{Wi} 1	2	3	4	5	6	7	8	L_{Wi}A
300	100	85	84	82	78	74	68	64	58	80
	80	85	84	82	77	74	68	64	58	80
	60	84	84	81	77	74	68	63	58	79
	50	83	83	81	77	74	68	63	57	79
	40	85	83	81	77	74	68	64	58	79
400	100	91	86	85	80	78	72	64	59	83
	80	89	83	83	79	77	70	62	57	81
	60	85	82	82	79	76	70	62	57	81
	50	84	81	82	79	77	70	63	58	81
	40	85	81	81	78	77	70	63	59	81
600	100	102	98	94	88	87	81	76	71	92
	80	99	94	90	85	86	77	71	67	89
	60	97	91	88	84	85	76	71	68	88
	50	96	90	87	84	85	76	71	68	88
	40	96	90	88	83	85	77	72	69	88
800	100	102	108	101	95	95	90	85	80	100
	80	99	106	97	92	90	85	81	77	96
	60	96	102	93	88	87	81	78	76	93
	50	96	101	92	87	86	81	79	77	92
	40	96	100	91	87	86	81	79	77	91
1100	100	108	114	109	104	104	101	97	93	109
	80	104	112	106	100	98	94	90	86	104
	60	101	107	101	96	94	89	87	85	100
	50	101	107	101	96	94	89	87	85	100
	40	105	107	101	95	93	89	87	86	99
1550	100	114	119	122	114	111	110	106	102	118
	80	110	117	120	111	107	103	99	96	115
	60	107	112	115	106	103	99	95	93	110
	50	107	113	115	106	102	99	95	94	110
	40	111	114	115	105	101	98	96	94	110

RPM	%WOV	Outlet Sound Power, L_{Wo} 1	2	3	4	5	6	7	8	L_{Wo}A
300	100	86	83	77	74	71	63	55	46	76
	80	85	82	76	73	70	63	54	45	75
	60	81	79	75	71	69	61	52	44	73
	50	82	79	75	71	69	61	52	44	74
	40	80	78	74	71	69	61	52	44	73
400	100	101	89	82	79	76	70	61	55	82
	80	96	86	79	76	74	67	59	53	79
	60	96	86	77	74	71	66	57	52	78
	50	93	84	76	74	71	66	57	53	77
	40	92	83	76	74	71	66	58	53	77
600	100	110	103	92	89	86	81	74	68	93
	80	106	101	89	86	82	78	71	66	90
	60	102	95	85	82	79	74	68	64	86
	50	101	94	85	81	78	74	68	64	85
	40	102	95	84	80	78	74	69	65	85
800	100	106	110	99	97	94	90	84	78	100
	80	104	107	96	94	90	85	79	73	97
	60	100	104	92	90	86	80	76	73	93
	50	100	103	91	89	85	80	76	73	92
	40	101	103	90	88	84	80	77	73	92
1100	100	111	114	108	106	104	102	97	91	109
	80	108	111	104	103	99	95	92	85	105
	60	105	108	99	99	95	89	86	82	101
	50	105	106	99	98	94	88	86	82	99
	40	107	105	98	97	93	88	86	82	99
1550	100	117	120	121	115	113	110	107	102	119
	80	114	117	118	111	108	105	101	96	115
	60	111	114	115	107	104	99	95	91	110
	50	111	113	113	106	103	98	95	92	109
	40	112	113	112	105	102	98	94	92	109

The sound power level ratings shown are in decibels, referred to 10^{-12} watts calculated per AMCA Standard 301. Values shown are for inlet L_{Wi}, L_{Wi}A and outlet L_{Wo}, L_{Wo}A sound power levels for Installation Type B: free inlet, ducted outlet. Outlet ratings include the effects of duct end correction. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.

44 BIDW

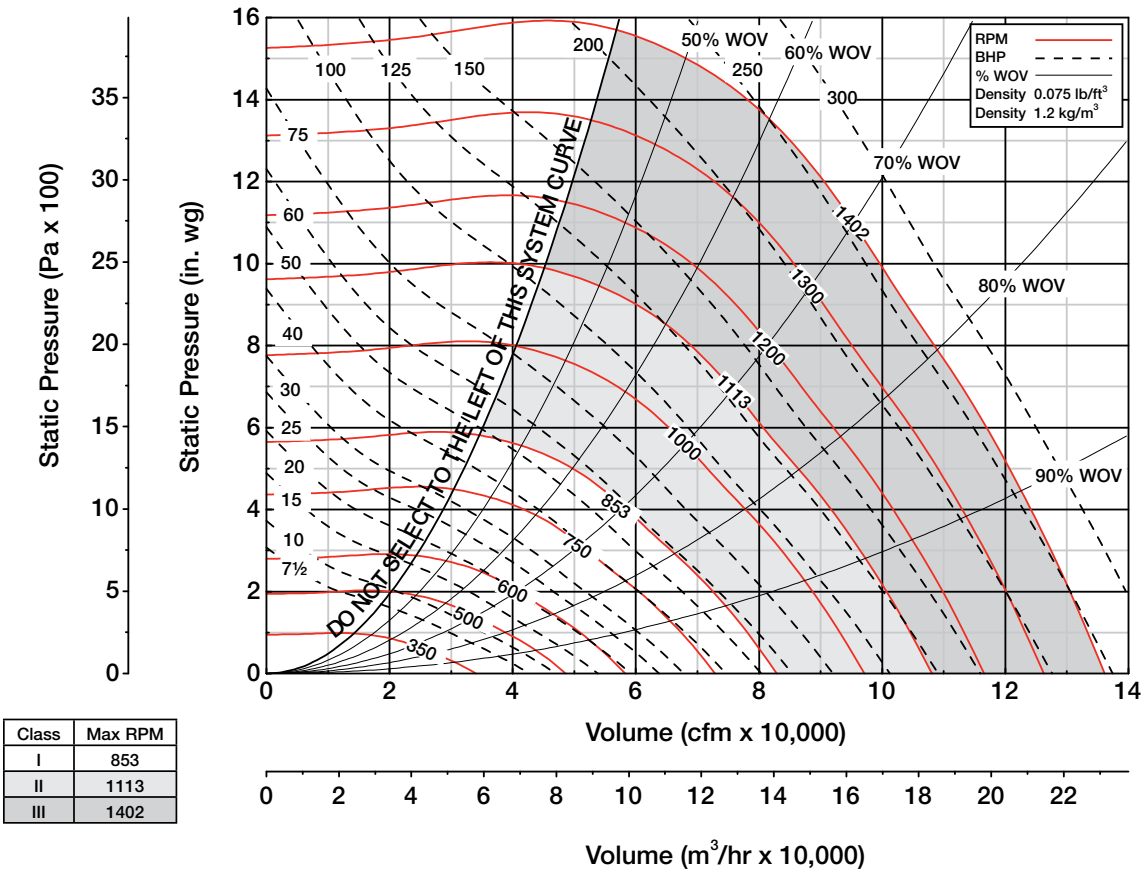
Wheel Diameter = 44½ in.	Minimum Starting HP = 7½
Outlet Area = 20.49 ft.^{2}	Maximum RPM Class I = 853
Tip Speed = 11.65 x RPM	Maximum RPM Class II = 1113
Maximum BHP = (RPM/219)^3	Maximum RPM Class III = 1402

CFM	OV	STATIC PRESSURE (in. wg)																			
		0.25		0.50		0.75		1.00		1.25		1.50		1.75		2.00		2.25		2.50	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
15000	732	216	0.95	266	1.70	312	2.57	356	3.56												
18600	907	243	1.37	287	2.21	327	3.16	366	4.22	402	5.36	436	6.60								
22200	1083	272	1.91	313	2.89	348	3.92	381	5.03	415	6.28	446	7.57	476	8.93	505	10.4	534	11.9		
25800	1259	303	2.62	340	3.73	373	4.88	403	6.08	432	7.37	461	8.76	489	10.2	516	11.7	541	13.3	567	14.9
29400	1434	335	3.52	368	4.74	400	6.05	427	7.35	454	8.72	480	10.2	504	11.7	530	13.3	555	15.0	579	16.7
33000	1610	369	4.65	398	5.97	427	7.40	454	8.88	479	10.3	502	11.9	526	13.5	548	15.1	570	16.8	594	18.7
36600	1786	403	6.02	429	7.45	456	8.97	482	10.6	506	12.2	528	13.9	549	15.5	571	17.3	591	19.1	611	20.9
40200	1961	437	7.66	461	9.21	486	10.9	510	12.6	533	14.4	555	16.2	575	17.9	594	19.7	614	21.6	634	23.6
43800	2137	472	9.60	495	11.3	517	13.0	539	14.8	561	16.8	582	18.7	602	20.7	621	22.6	639	24.6	656	26.5
47400	2313	508	11.9	529	13.7	549	15.5	570	17.4	590	19.4	610	21.5	630	23.7	648	25.8	666	27.9	683	30.0
51000	2489	543	14.5	563	16.4	582	18.4	601	20.4	620	22.5	639	24.7	658	27.0	676	29.3	693	31.5	710	33.8
54600	2664	579	17.5	597	19.5	615	21.6	632	23.7	651	26.0	668	28.2	686	30.6	704	33.0	721	35.5	737	38.0
58200	2840	615	21.0	632	23.0	649	25.3	665	27.5	682	29.8	699	32.2	715	34.6	732	37.2	749	39.8	765	42.4
61800	3016	652	24.8	667	27.0	683	29.3	699	31.7	714	34.1	730	36.6	746	39.2	761	41.8	777	44.4	793	47.2
65400	3191	688	29.2	702	31.4	717	33.9	732	36.4	747	38.9	762	41.5	777	44.2	792	46.9	806	49.6	821	52.4
69000	3367	724	34.0	738	36.4	752	38.9	766	41.5	780	44.2	794	46.9	808	49.6	823	52.5	837	55.3	850	58.2

CFM	OV	STATIC PRESSURE (in. wg)																			
		2.50		3.00		3.50		4.00		4.50		5.00		5.50		6.00		6.50		7.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
29000	1415	577	16.5	623	20.0	668	23.9	710	27.9												
32600	1591	592	18.4	636	22.2	676	26.0	717	30.2	757	34.6	795	39.1								
36200	1766	609	20.6	651	24.6	691	28.7	728	32.9	764	37.3	802	42.0	837	46.9	871	51.9				
39800	1942	631	23.3	668	27.2	706	31.5	743	36.0	778	40.6	812	45.3	844	50.2	878	55.4	911	60.7	943	66.1
43400	2118	654	26.2	690	30.4	724	34.7	758	39.3	793	44.2	826	49.1	858	54.2	888	59.3	918	64.6	950	70.3
47000	2293	680	29.6	713	33.9	746	38.5	778	43.1	808	47.9	841	53.2	873	58.5	903	63.9	932	69.4	960	74.9
50600	2469	707	33.3	738	37.8	769	42.5	800	47.4	829	52.4	858	57.5	888	63.0	918	68.7	947	74.4	975	80.2
54200	2645	734	37.5	765	42.2	794	47.1	823	52.0	852	57.3	880	62.7	906	68.1	933	73.7	962	79.7	990	85.8
57800	2820	762	41.9	792	47.0	821	52.1	848	57.3	875	62.6	902	68.2	929	73.9	954	79.6	978	85.5	1005	91.6
61400	2996	790	46.6	820	52.2	848	57.6	875	63.0	900	68.5	925	74.1	951	80.0	976	86.1	1001	92.1	1024	98.3
65000	3172	818	51.8	847	57.6	875	63.5	902	69.2	927	75.0	951	80.8	974	86.6	999	92.9	1023	99.2	1046	106
68600	3347	847	57.5	875	63.6	903	69.7	929	75.9	954	81.9	977	88.0	1000	94.1	1023	100	1046	107	1069	113
72200	3523	877	63.8	904	69.9	931	76.4	957	82.9	981	89.4	1005	95.7	1027	102	1049	109	1070	115	1092	122
75800	3699	908	70.6	933	76.9	959	83.5	984	90.3	1009	97.2	1032	104	1054	111	1076	117	1097	124	1117	131
79400	3875	940	78.0	964	84.6	988	91.2	1012	98.3	1036	105	1059	113	1082	120	1103	127	1123	134	1144	141
83000	4050	971	86.0	995	92.8	1018	99.7	1041	107	1064	114	1087	122	1109	129	1130	137	1151	144	1170	151

CFM	OV	STATIC PRESSURE (in. wg)																			
		7.00		7.50		8.00		8.50		9.00		10.00		11.00		12.00		13.00		14.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
49000	2391	968	77.9	995	83.6	1021	89.5	1049	95.7	1076	102	1130	115	1180	129						
52600	2567	983	83.3	1010	89.4	1036	95.5	1061	102	1086	108	1137	121	1187	135	1235	149	1282	164		
56200	2742	998	89.0	1025	95.3	1051	102	1076	108	1101	115	1148	128	1194	142	1242	157	1289	172	1333	187
59800	2918	1014	95.2	1040	102	1066	108	1091	115	1115	122	1162	136	1207	150	1250	164	1296	179	1340	195
63400	3094	1036	102	1059	109	1081	115	1106	122	1130	129	1177	143	1222	158	1265	173	1306	188	1347	204
67000	3269	1059	110	1081	117	1103	123	1125	130	1145	137	1192	152	1237	167	1280	182	1321	198	1360	213
70600	3445	1081	118	1104	125	1125	132	1147	139	1167	146	1207	160	1252	176	1294	192	1335	208	1375	224
74200	3621	1105	127	1126	134	1148	141	1169	148	1190	155	1229	170	1267	185	1309	202	1350	218	1390	235
77800	3796	1132	136	1151	143	1171	150	1192	158	1212	165	1251	181	1289	196	1325	212	1365	229		
81400	3972	1158	146	1178	154	1197	161	1215	168	1235	176	1274	192	1311	208	1347	224	1382	241		
85000	4148	1185	157	1205	165	1223	172	1242	180	1260	187	1297	203	1334	220	1369	237				
88600	4324	1213	169	1232	176	1250	184	1268	192	1286	200	1321	216	1356	233	1392	250				
92200	4499	1240	181	1259	189	1277	197	1295	205	1313	213	1347	229	1380	246						
95800	4675	1268	193	1287	202	1305	210	1322	218	1340	227	1374	244								
99400	4851	1295	206	1314	215	1332	224	1350	233	1367	241	1400	259								
103000	5026	1323	219	1342	229	1360	238	1377	247	1395	257										

Performance certified is for model BIDW Arrangement 3, Installation Type B: free inlet, ducted outlet.
Performance ratings do not include the effects of appurtenances (accessories).
Power rating (BHP) does not include transmission losses.



Class	Max RPM
I	853
II	1113
III	1402

% WOV = (CFM X 100) / (RPM X 97.1)

Sound Power [dB Ref 10^{-12} watts]

Inlet Sound Power, L_{Wi}										
RPM	%WOV	1	2	3	4	5	6	7	8	L_{Wi}A
250	100	85	83	80	76	72	66	61	55	78
	80	84	82	80	76	72	66	61	55	78
	60	83	82	79	75	72	66	61	55	77
	50	83	81	79	75	72	66	61	54	77
	40	84	81	79	75	72	66	61	56	77
350	100	90	86	84	80	77	71	63	58	82
	80	88	83	82	79	76	69	61	56	81
	60	84	82	82	78	75	69	61	56	80
	50	83	81	81	78	76	69	63	57	80
	40	84	81	81	78	76	69	63	58	80
500	100	102	96	91	86	85	79	73	68	90
	80	99	92	88	84	83	75	69	65	87
	60	97	89	86	83	82	74	69	67	86
	50	96	88	85	83	82	74	70	67	86
	40	96	88	86	83	83	75	70	68	86
700	100	103	107	100	95	94	89	84	79	99
	80	100	104	96	92	89	84	80	76	95
	60	98	101	92	88	86	81	78	76	92
	50	97	99	91	87	85	81	79	76	91
	40	97	98	91	87	85	81	79	76	91
1000	100	110	115	110	105	104	101	97	93	109
	80	106	113	106	101	99	94	91	87	105
	60	103	109	101	97	94	89	87	86	101
	50	103	108	102	97	94	90	88	86	100
	40	107	108	101	96	94	90	88	87	100
1402	100	116	121	121	114	112	110	106	102	118
	80	112	118	119	111	107	104	100	96	114
	60	108	114	114	106	103	99	96	94	110
	50	109	114	114	106	103	99	96	94	110
	40	113	115	114	105	102	99	96	95	110

Outlet Sound Power, L_{Wo}										
RPM	%WOV	1	2	3	4	5	6	7	8	L_{Wo}A
250	100	85	80	75	72	69	60	51	43	74
	80	84	79	74	71	68	60	51	42	73
	60	80	77	73	69	67	58	49	41	71
	50	81	77	73	69	67	58	49	41	72
	40	79	77	72	69	67	58	49	41	71
350	100	99	88	81	78	75	68	60	54	81
	80	94	85	78	76	73	66	58	52	78
	60	94	84	76	74	70	64	56	51	77
	50	92	83	76	73	70	64	56	52	76
	40	91	82	76	73	71	65	57	52	76
500	100	109	99	90	87	83	78	72	65	91
	80	106	96	87	84	80	75	69	63	88
	60	102	92	83	80	77	72	66	62	84
	50	101	90	82	79	76	71	66	63	83
	40	102	91	82	79	76	71	67	63	83
700	100	107	108	99	97	94	89	83	77	99
	80	105	105	96	94	89	84	78	72	96
	60	102	102	91	89	85	80	76	72	92
	50	101	100	90	88	84	79	76	72	91
	40	101	100	90	88	83	79	76	73	91
1000	100	112	116	109	107	105	102	97	91	110
	80	109	113	104	103	100	96	92	85	106
	60	106	109	100	99	95	90	86	82	101
	50	106	108	99	98	94	89	87	82	100
	40	107	107	99	97	93	89	87	82	99
1402	100	118	121	121	115	113	111	107	102	119
	80	115	119	117	111	109	105	101	95	115
	60	112	115	113	107	104	99	95	91	110
	50	112	114	112	106	103	99	95	92	109
	40	114	114	111	106	102	98	95	92	109

The sound power level ratings shown are in decibels, referred to 10^{-12} watts calculated per AMCA Standard 301. Values shown are for inlet L_{Wi}, L_{Wi}A and outlet L_{Wo}, L_{Wo}A sound power levels for Installation Type B: free inlet, ducted outlet. Outlet ratings include the effects of duct end correction. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.

49 BIDW

Wheel Diameter = 49 in.
Outlet Area = 24.85 ft.^{2}
Tip Speed = 12.83 x RPM
Maximum BHP = (RPM/187)^3

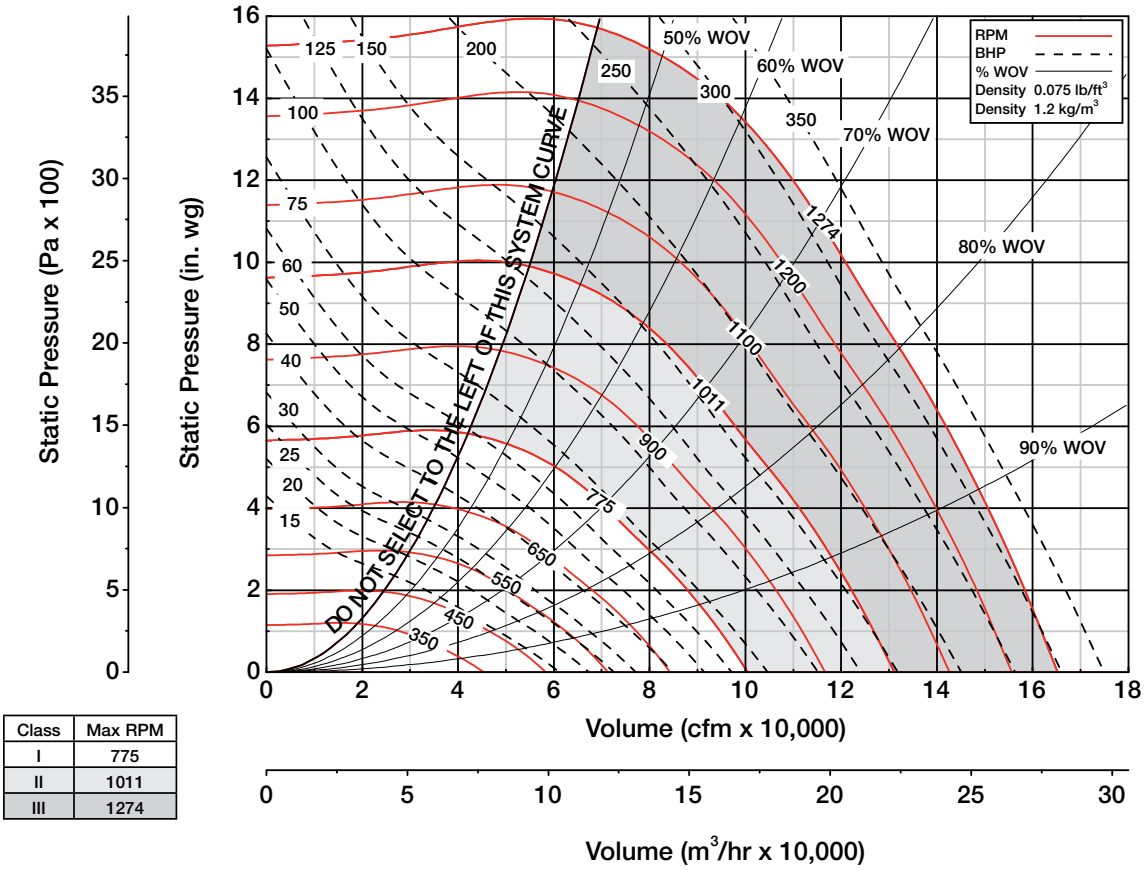
Minimum Starting HP = 15
Maximum RPM Class I = 775
Maximum RPM Class II = 1011
Maximum RPM Class III = 1274

CFM	OV	STATIC PRESSURE (in. wg)																			
		0.25		0.50		0.75		1.00		1.25		1.50		1.75		2.00		2.25		2.50	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
18000	724	195	1.13	241	2.04	283	3.08	323	4.29												
22400	901	220	1.64	260	2.65	297	3.80	332	5.08	364	6.46	396	7.97								
26800	1078	246	2.29	283	3.48	315	4.72	345	6.07	376	7.58	405	9.14	432	10.8	459	12.6	484	14.4		
31200	1255	274	3.16	308	4.50	338	5.89	365	7.35	392	8.90	418	10.6	444	12.4	468	14.2	491	16.0	515	18.1
35600	1432	304	4.26	334	5.73	363	7.32	388	8.90	412	10.6	435	12.3	458	14.1	482	16.1	504	18.1	525	20.2
40000	1609	335	5.63	362	7.24	388	8.97	412	10.8	435	12.5	456	14.4	478	16.3	498	18.3	518	20.4	539	22.6
44400	1786	366	7.31	390	9.05	414	10.9	438	12.9	459	14.9	480	16.8	498	18.8	518	21.0	537	23.2	555	25.4
48800	1963	398	9.32	420	11.2	442	13.2	463	15.3	485	17.5	504	19.6	523	21.8	540	24.0	558	26.3	576	28.6
53200	2140	429	11.7	450	13.7	470	15.9	490	18.0	510	20.4	529	22.8	547	25.1	565	27.5	581	29.8	597	32.2
57600	2317	462	14.5	481	16.7	499	18.9	518	21.3	536	23.7	555	26.2	573	28.8	589	31.4	605	33.9	621	36.5
62000	2494	495	17.7	512	20.0	529	22.4	547	24.9	564	27.5	581	30.1	598	32.8	615	35.6	630	38.4	645	41.1
66400	2672	528	21.4	544	23.8	560	26.4	576	29.0	592	31.7	608	34.4	624	37.3	640	40.2	656	43.2	671	46.2
70800	2849	561	25.7	575	28.2	591	30.9	606	33.6	621	36.5	636	39.4	651	42.3	666	45.3	681	48.5	696	51.7
75200	3026	594	30.4	607	33.0	622	35.9	636	38.8	650	41.7	665	44.8	679	47.9	693	51.0	707	54.2	721	57.6
79600	3203	627	35.8	640	38.5	654	41.5	667	44.5	680	47.6	694	50.8	708	54.0	721	57.3	734	60.6	747	64.0
84000	3380	660	41.7	672	44.6	685	47.6	698	50.8	711	54.1	723	57.4	736	60.8	749	64.2	762	67.6	774	71.1

CFM	OV	STATIC PRESSURE (in. wg)																			
		2.50		3.00		3.50		4.00		4.50		5.00		5.50		6.00		6.50		7.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
35500	1428	525	20.1	566	24.4	607	29.1	646	34.0												
39800	1601	538	22.5	578	27.1	615	31.8	652	36.8	688	42.1	722	47.6								
44100	1774	554	25.2	591	29.9	628	34.9	662	40.1	694	45.3	728	51.1	761	57.0	792	63.1				
48400	1947	574	28.3	607	33.2	641	38.3	675	43.8	707	49.4	737	55.1	767	60.9	798	67.3	828	73.7	856	80.3
52700	2120	594	31.8	627	36.9	658	42.2	689	47.7	720	53.6	751	59.6	779	65.8	807	72.0	834	78.4	862	85.3
57000	2293	617	35.9	647	41.1	678	46.6	706	52.3	734	58.1	764	64.5	793	70.9	820	77.4	846	84.1	872	90.8
61300	2466	641	40.3	670	45.8	698	51.4	726	57.4	753	63.5	779	69.7	806	76.3	833	83.2	860	90.1	885	97.2
65600	2639	666	45.3	694	51.0	720	56.9	746	62.9	773	69.3	798	75.8	823	82.4	847	89.2	873	96.5	898	104
69900	2812	691	50.5	718	56.8	744	62.9	769	69.1	793	75.6	818	82.4	842	89.3	865	96.2	888	103	912	111
74200	2985	716	56.2	743	62.9	769	69.4	793	76.0	816	82.6	839	89.4	862	96.6	885	104	908	111	929	119
78500	3158	741	62.4	768	69.4	793	76.5	817	83.4	840	90.3	862	97.3	883	104	906	112	927	120	949	127
82800	3331	767	69.1	793	76.4	818	83.9	841	91.3	864	98.5	886	106	906	113	927	121	948	129	969	137
87100	3505	794	76.6	818	84.0	843	91.8	866	99.6	888	107	910	115	930	123	950	131	969	138	989	147
91400	3678	822	84.7	844	92.2	868	100	891	108	913	117	934	125	954	133	974	141	993	149	1012	157
95700	3851	850	93.4	872	101	893	109	916	118	938	126	959	135	979	144	998	152	1017	160	1035	169
100000	4024	878	103	899	111	920	119	941	128	963	137	983	146	1003	155	1023	164	1041	172	1059	181

CFM	OV	STATIC PRESSURE (in. wg)																			
		7.00		7.50		8.00		8.50		9.00		10.00		11.00		12.00		13.00		14.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
60000	2414	881	95.2	905	102	929	109	953	117	978	125	1027	141	1072	157						
64400	2591	895	102	919	109	943	117	966	124	988	132	1033	148	1079	165	1123	182	1165	200		
68800	2768	908	109	933	117	956	124	979	132	1001	140	1044	156	1085	173	1129	191	1171	209	1212	228
73200	2945	924	117	946	124	970	133	993	141	1015	149	1058	166	1098	183	1137	200	1177	219	1218	238
77600	3122	945	126	965	133	985	141	1006	149	1029	158	1071	175	1112	193	1151	211	1188	230	1224	248
82000	3299	965	135	985	143	1005	151	1025	159	1044	168	1085	186	1125	204	1164	223	1201	242	1237	261
86400	3476	986	145	1006	153	1026	162	1045	170	1064	179	1100	196	1139	215	1178	234	1215	254	1251	274
90800	3653	1008	156	1027	164	1046	173	1066	182	1084	191	1120	209	1154	227	1192	247	1229	267	1264	288
95200	3830	1032	168	1050	176	1068	185	1086	194	1105	203	1140	222	1175	241	1207	260	1242	280		
99600	4008	1057	180	1075	189	1092	198	1109	207	1126	216	1161	235	1195	255	1228	275	1259	295		
104000	4185	1082	193	1099	203	1116	212	1133	221	1149	230	1182	250	1216	270	1248	290				
108400	4362	1107	208	1124	217	1141	227	1157	236	1173	246	1205	265	1236	286	1269	307				
112800	4539	1132	222	1149	232	1166	242	1182	252	1198	262	1229	282	1258	302						
117200	4716	1157	238	1174	248	1191	259	1207	269	1223	279	1253	300								
121600	4893	1183	254	1199	265	1216	276	1232	286	1248	297										
126000	5070	1208	270	1225	282	1241	293	1257	305	1273	316										

Performance certified is for model BIDW Arrangement 3, Installation Type B: free inlet, ducted outlet.
Performance ratings do not include the effects of appurtenances (accessories).
Power rating (BHP) does not include transmission losses.



Class	Max RPM
I	775
II	1011
III	1274

% WOV = (CFM X 100) / (RPM X 130)

Sound Power [dB Ref 10^{-12} watts]

RPM	%WOV	Inlet Sound Power, L_{Wi} 1	2	3	4	5	6	7	8	L_{Wi}A
250	100	88	86	83	79	75	69	64	58	81
	80	88	86	83	78	75	69	64	58	81
	60	86	85	82	78	75	69	64	58	80
	50	86	84	82	78	75	69	64	57	80
	40	87	84	82	78	75	69	64	59	80
350	100	93	89	87	83	80	73	66	61	85
	80	91	86	85	82	79	72	64	59	84
	60	88	85	85	81	78	71	64	59	83
	50	86	84	84	81	78	72	66	60	83
	40	87	84	84	81	78	72	66	61	83
500	100	105	99	94	89	88	82	76	71	93
	80	102	95	91	87	86	78	72	68	90
	60	100	92	89	86	85	77	72	69	89
	50	99	91	88	86	85	77	73	70	89
	40	100	91	89	86	86	78	73	71	89
700	100	106	110	103	98	97	92	87	82	102
	80	104	107	99	95	92	87	83	79	98
	60	101	104	95	91	89	84	81	79	95
	50	100	102	94	90	88	84	82	79	94
	40	100	101	93	90	88	84	82	79	94
900	100	111	117	109	105	104	101	97	93	110
	80	108	115	106	101	99	94	91	87	105
	60	104	110	101	97	94	90	88	86	101
	50	105	110	101	97	94	90	88	86	101
	40	107	109	101	96	94	90	89	87	100
1274	100	117	122	121	114	113	110	107	103	119
	80	114	120	118	111	108	104	100	96	114
	60	110	116	113	106	104	99	96	94	110
	50	111	115	113	106	104	99	96	95	110
	40	115	116	113	105	103	99	97	95	110

RPM	%WOV	Outlet Sound Power, L_{Wo} 1	2	3	4	5	6	7	8	L_{Wo}A
250	100	88	83	78	75	72	63	54	46	77
	80	87	82	77	74	71	63	54	45	76
	60	83	80	76	72	69	61	51	44	74
	50	84	80	76	72	70	61	52	44	74
	40	82	80	75	72	70	61	52	44	74
350	100	102	91	84	81	78	71	63	57	84
	80	97	88	81	79	75	69	61	55	81
	60	97	87	79	77	73	67	59	54	80
	50	95	85	79	76	73	67	59	55	79
	40	94	85	79	76	73	68	60	55	79
500	100	112	102	93	90	86	81	75	68	94
	80	109	99	90	87	83	78	72	66	91
	60	105	94	86	83	80	75	69	65	87
	50	104	93	85	82	79	74	69	65	86
	40	105	94	85	82	79	74	69	66	86
700	100	110	111	102	100	97	92	86	80	102
	80	108	108	99	97	92	87	81	75	99
	60	104	105	94	92	88	83	79	75	95
	50	104	103	93	91	87	82	79	75	94
	40	104	103	93	90	86	82	79	75	94
900	100	114	117	109	107	105	102	97	91	110
	80	111	114	105	104	100	96	91	84	106
	60	107	110	101	99	95	90	86	82	101
	50	107	109	100	98	94	89	87	82	100
	40	108	108	99	97	93	89	87	82	100
1274	100	119	123	120	116	114	111	107	102	119
	80	117	120	116	112	109	105	102	95	115
	60	113	116	112	108	105	99	96	92	110
	50	113	115	111	107	104	99	96	92	109
	40	115	115	110	106	103	98	96	92	109

The sound power level ratings shown are in decibels, referred to 10^{-12} watts calculated per AMCA Standard 301. Values shown are for inlet L_{Wi}, L_{Wi}A and outlet L_{Wo}, L_{Wo}A sound power levels for Installation Type B: free inlet, ducted outlet. Outlet ratings include the effects of duct end correction. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.

54 BIDW

Wheel Diameter = 54¼ in.
Outlet Area = 30.46 ft.^{2}
Tip Speed = 14.20 x RPM
Maximum BHP = (RPM/158)^3

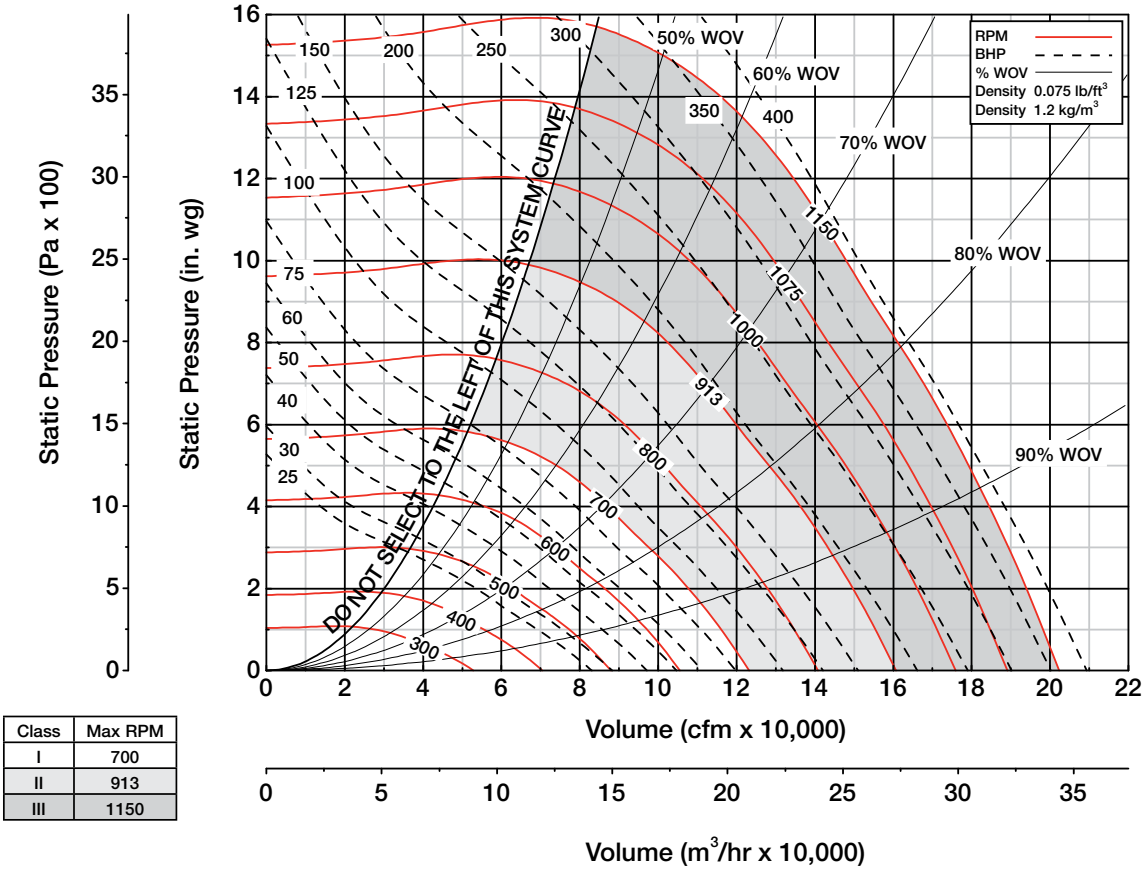
Minimum Starting HP = 25
Maximum RPM Class I = 700
Maximum RPM Class II = 913
Maximum RPM Class III = 1150

CFM	OV	STATIC PRESSURE (in. wg)																			
		0.25		0.50		0.75		1.00		1.25		1.50		1.75		2.00		2.25		2.50	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
24000	787	184	1.59	223	2.73	260	4.08	294	5.58	325	7.22										
29300	961	206	2.25	241	3.56	273	5.00	304	6.63	332	8.35	360	10.2	386	12.2						
34600	1135	230	3.12	263	4.65	291	6.21	318	7.92	344	9.78	369	11.8	393	13.8	416	16.0	439	18.3	461	20.7
39900	1309	256	4.25	285	5.95	312	7.72	336	9.54	359	11.5	381	13.6	405	15.8	426	18.1	447	20.4	467	22.9
45200	1483	283	5.67	309	7.51	334	9.54	357	11.5	378	13.6	399	15.8	418	18.1	439	20.5	459	23.0	478	25.6
50500	1657	310	7.43	334	9.44	357	11.6	379	13.9	399	16.1	417	18.4	436	20.8	455	23.3	472	25.9	490	28.6
55800	1831	338	9.55	359	11.7	380	14.0	401	16.5	421	19.0	439	21.5	456	24.0	473	26.6	490	29.3	506	32.1
61100	2005	366	12.1	385	14.4	405	16.9	424	19.5	443	22.2	461	25.0	477	27.6	493	30.4	508	33.1	524	36.1
66400	2179	394	15.0	413	17.6	430	20.2	448	22.9	466	25.8	483	28.8	499	31.8	515	34.7	529	37.6	544	40.6
71700	2353	423	18.5	440	21.2	456	24.0	473	26.9	489	29.9	506	33.1	522	36.3	537	39.5	551	42.6	565	45.8
77000	2527	452	22.5	468	25.4	483	28.3	499	31.4	514	34.6	529	37.8	545	41.2	559	44.7	574	48.2	587	51.5
82300	2701	482	27.1	496	30.1	510	33.2	524	36.4	539	39.8	554	43.2	568	46.7	582	50.3	596	54.0	609	57.8
87600	2875	511	32.3	524	35.4	538	38.7	551	42.1	565	45.6	579	49.2	592	52.8	605	56.6	619	60.5	632	64.4
92900	3049	540	38.1	552	41.3	566	44.9	579	48.5	591	52.1	604	55.8	617	59.7	629	63.5	642	67.5	655	71.6
98200	3223	570	44.6	581	48.0	594	51.7	606	55.4	618	59.2	630	63.1	642	67.1	654	71.2	666	75.3	678	79.5
103500	3397	599	51.9	610	55.4	622	59.2	634	63.1	645	67.1	656	71.2	668	75.3	679	79.6	691	83.8	702	88.1

CFM	OV	STATIC PRESSURE (in. wg)																			
		2.50		3.00		3.50		4.00		4.50		5.00		5.50		6.00		6.50		7.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
45000	1477	478	25.5	514	30.8	550	36.6	585	42.6												
50200	1648	490	28.4	525	34.1	558	39.9	590	46.1	623	52.7	654	59.5	683	66.5						
55400	1818	505	31.8	537	37.6	570	43.9	601	50.3	630	56.8	659	63.8	688	71.1	716	78.6	743	86.3		
60600	1989	523	35.7	553	41.7	582	48.0	613	54.8	642	61.8	669	68.8	695	76.1	722	83.8	749	91.8	775	99.9
65800	2160	541	40.1	570	46.4	598	52.9	625	59.7	653	67.0	681	74.4	707	82.0	732	89.8	755	97.6	780	106
71000	2330	562	45.1	589	51.5	616	58.4	642	65.4	666	72.6	693	80.3	718	88.3	743	96.4	767	105	790	113
76200	2501	584	50.6	610	57.4	634	64.3	660	71.7	684	79.2	707	86.9	730	94.9	755	103	779	112	802	121
81400	2672	606	56.7	631	63.8	655	71.1	678	78.5	702	86.4	724	94.4	746	103	767	111	791	120	814	129
86600	2843	628	63.1	653	70.9	676	78.5	698	86.2	720	94.0	742	102	764	111	785	120	805	128	826	137
91800	3013	650	70.1	675	78.3	698	86.5	720	94.6	740	103	760	111	782	120	803	129	823	138	842	147
97000	3184	673	77.6	697	86.3	720	95.1	741	104	762	112	781	121	800	130	821	139	840	148	860	158
102200	3355	696	85.9	719	94.9	742	104	763	113	783	122	803	131	822	140	840	150	858	159	877	169
107400	3525	720	95.0	742	104	764	114	785	123	805	133	824	142	843	152	861	162	878	171	896	181
112600	3696	745	105	765	114	786	124	807	134	827	144	846	154	864	164	882	174	899	184	916	194
117800	3867	770	116	790	125	809	135	829	146	849	156	868	167	886	177	904	188	921	198	937	208
123000	4038	795	127	814	137	833	147	852	158	871	169	890	180	908	191	925	202	942	213	958	224

CFM	OV	STATIC PRESSURE (in. wg)																			
		7.00		7.50		8.00		8.50		9.00		10.00		11.00		12.00		13.00		14.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
73000	2396	795	116	817	125	838	133	860	142	883	152	927	172	968	192						
78400	2573	807	124	829	133	850	142	871	151	891	161	932	180	974	201	1013	222	1052	244		
83800	2751	819	133	841	142	862	152	883	161	903	171	942	191	980	211	1019	233	1057	256	1094	278
89200	2928	833	142	854	152	875	161	895	171	916	182	954	202	991	223	1026	244	1063	267	1100	291
94600	3105	851	153	870	162	888	172	908	182	928	193	966	214	1003	236	1038	258	1072	280	1105	303
100000	3282	870	164	888	174	906	184	924	194	941	204	979	226	1015	249	1050	272	1084	295	1117	318
105400	3460	889	176	907	187	925	197	942	207	959	218	992	239	1028	262	1063	286	1096	310	1129	334
110800	3637	909	190	926	200	943	211	961	221	977	232	1010	254	1041	277	1075	301	1109	326	1141	351
116200	3814	931	204	947	214	962	225	979	236	996	247	1028	270	1059	293	1089	317	1121	342		
121600	3992	953	219	969	230	984	241	999	252	1015	263	1047	287	1078	311	1107	335	1136	360		
127000	4169	975	236	991	247	1006	258	1021	269	1036	281	1066	305	1096	329	1126	354				
132400	4346	998	253	1013	265	1028	276	1043	288	1058	300	1086	323	1115	348	1144	374				
137800	4523	1021	271	1036	283	1051	295	1066	307	1080	319	1108	344	1135	369						
143200	4701	1043	290	1059	303	1074	315	1088	328	1102	340	1130	366								
148600	4878	1066	309	1082	323	1096	336	1111	349	1125	362										
154000	5055	1090	330	1105	344	1119	358	1134	371	1148	385										

Performance certified is for model BIDW Arrangement 3, Installation Type B: free inlet, ducted outlet.
Performance ratings do not include the effects of appurtenances (accessories).
Power rating (BHP) does not include transmission losses.



Class	Max RPM
I	700
II	913
III	1150

% WOV = (CFM X 100) / (RPM X 176)

Sound Power [dB Ref 10^{-12} watts]

Inlet Sound Power, L_{Wi}

RPM	%WOV	1	2	3	4	5	6	7	8	L_{Wi}A
200	100	85	83	80	76	71	66	61	55	78
	80	85	83	80	76	71	66	61	55	78
	60	84	83	79	76	71	65	60	54	77
	50	83	82	79	76	71	65	60	53	77
	40	84	82	79	76	71	66	61	55	77
300	100	92	89	86	82	78	72	65	60	84
	80	90	86	84	81	77	70	63	57	82
	60	86	85	84	81	77	70	63	58	82
	50	85	84	83	81	77	70	64	59	82
	40	86	84	83	81	77	70	64	59	82
400	100	104	96	90	88	84	78	73	68	90
	80	100	92	88	86	81	74	69	65	87
	60	98	89	86	85	81	73	70	67	86
	50	97	88	85	85	81	74	70	67	86
	40	98	89	85	85	81	74	71	68	86
600	100	108	108	101	98	96	91	86	81	101
	80	105	105	97	94	91	86	82	78	97
	60	102	101	94	90	87	83	80	78	93
	50	101	100	93	90	87	83	81	78	93
	40	101	99	92	89	86	83	81	79	93
800	100	113	117	109	106	104	101	97	93	110
	80	110	115	105	102	98	94	91	87	105
	60	106	110	101	97	94	90	88	86	101
	50	106	110	101	97	94	90	88	87	101
	40	108	110	100	96	93	90	89	87	100
1150	100	119	124	120	114	114	111	107	103	119
	80	115	122	117	111	109	104	100	97	115
	60	111	118	112	106	104	99	97	95	110
	50	112	117	112	106	104	99	97	95	110
	40	116	117	112	105	103	99	98	96	110

Outlet Sound Power, L_{Wo}

RPM	%WOV	1	2	3	4	5	6	7	8	L_{Wo}A
200	100	85	80	75	73	67	58	50	41	74
	80	84	79	75	72	67	58	49	40	73
	60	80	77	73	70	65	56	47	40	71
	50	81	77	73	70	65	56	48	40	71
	40	80	76	72	70	65	56	48	40	71
300	100	99	89	83	80	76	69	61	55	83
	80	95	86	80	78	74	67	59	53	80
	60	95	85	78	76	72	65	58	53	78
	50	92	83	78	75	72	65	58	54	77
	40	91	83	78	76	72	66	59	54	78
400	100	110	97	90	87	83	77	71	64	90
	80	107	94	87	84	80	74	68	63	87
	60	103	90	83	81	76	71	66	62	84
	50	102	89	83	79	76	71	66	62	83
	40	103	89	82	79	75	71	67	63	83
600	100	111	108	101	99	95	91	84	78	101
	80	108	105	98	95	91	85	79	73	97
	60	105	102	94	91	86	81	78	74	93
	50	104	100	93	90	85	81	78	74	92
	40	105	100	92	89	85	81	78	74	92
800	100	115	117	109	107	105	102	97	91	110
	80	112	114	105	103	100	96	91	84	106
	60	108	110	101	99	94	90	86	82	101
	50	108	109	100	98	93	90	87	82	100
	40	108	108	100	97	92	89	87	82	100
1150	100	121	124	119	117	114	112	107	102	120
	80	118	121	115	113	110	106	102	95	115
	60	115	118	110	109	105	100	96	92	111
	50	115	116	109	108	104	99	96	92	110
	40	116	115	109	107	103	98	96	92	109

The sound power level ratings shown are in decibels, referred to 10^{-12} watts calculated per AMCA Standard 301. Values shown are for inlet L_{Wi}, L_{Wi}A and outlet L_{Wo}, L_{Wo}A sound power levels for Installation Type B: free inlet, ducted outlet. Outlet ratings include the effects of duct end correction. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.

60 BIDW

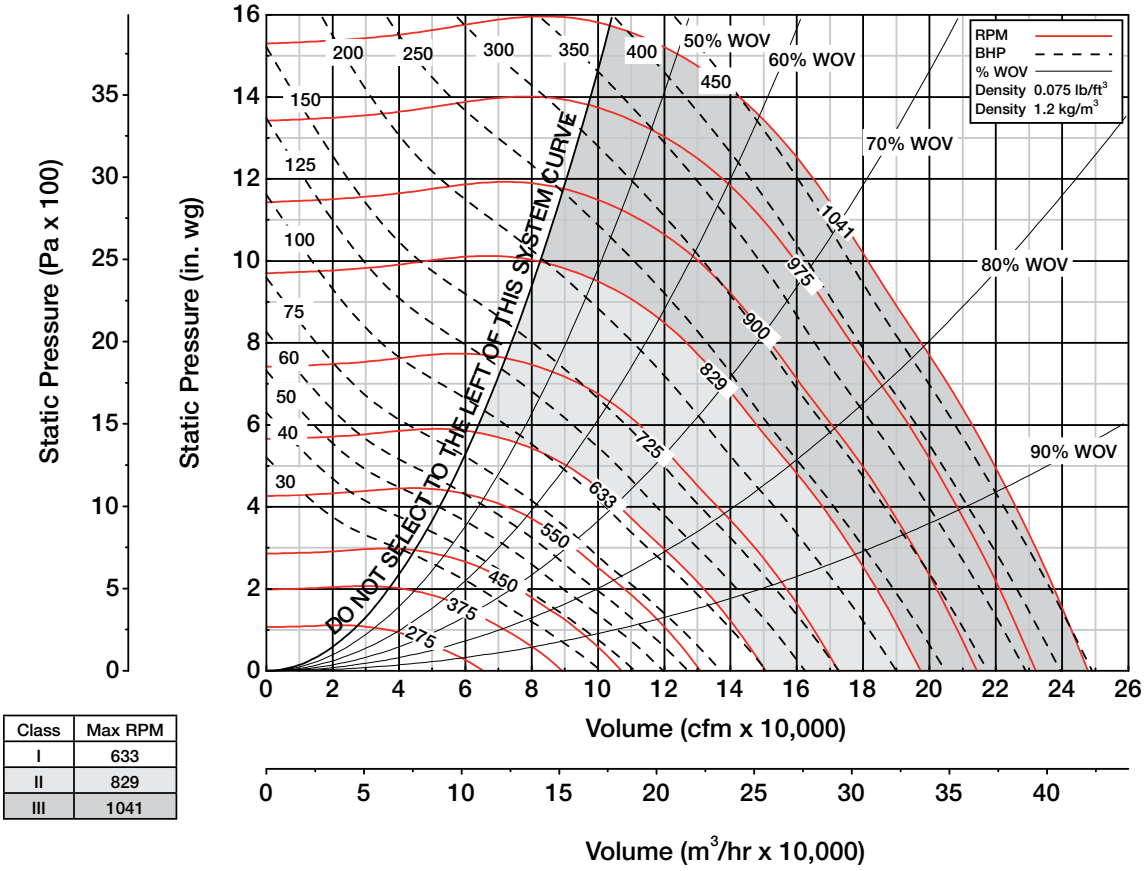
Wheel Diameter = 60 in.	Minimum Starting HP = 30
Outlet Area = 37.26 ft.^{2}	Maximum RPM Class I = 633
Tip Speed = 15.71 x RPM	Maximum RPM Class II = 829
Maximum BHP = (RPM/133)^3	Maximum RPM Class III = 1041

CFM	OV	STATIC PRESSURE (in. wg)																			
		0.25		0.50		0.75		1.00		1.25		1.50		1.75		2.00		2.25		2.50	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
30000	805	168	2.02	203	3.44	236	5.10	266	6.93	295	8.96										
36400	976	188	2.84	220	4.46	248	6.24	276	8.24	301	10.4	326	12.6	349	15.1						
42800	1148	210	3.91	239	5.79	264	7.72	288	9.83	312	12.1	335	14.5	356	17.1	377	19.7	397	22.6	417	25.5
49200	1320	233	5.29	259	7.39	283	9.57	305	11.8	326	14.2	346	16.7	367	19.5	386	22.3	405	25.2	422	28.1
55600	1492	257	7.03	280	9.29	303	11.8	323	14.2	342	16.8	361	19.5	379	22.2	397	25.2	415	28.3	433	31.5
62000	1663	281	9.17	302	11.6	323	14.3	343	17.1	361	19.8	378	22.6	395	25.6	412	28.7	427	31.8	444	35.1
68400	1835	306	11.7	325	14.4	344	17.2	363	20.3	381	23.3	397	26.3	412	29.4	428	32.6	443	36.0	458	39.4
74800	2007	331	14.8	349	17.7	366	20.7	384	23.9	401	27.2	417	30.6	432	33.9	446	37.2	460	40.6	474	44.2
81200	2179	356	18.4	373	21.5	389	24.7	405	28.1	421	31.6	437	35.2	451	38.9	465	42.4	479	46.0	491	49.7
87600	2351	382	22.6	397	25.9	412	29.3	427	32.8	442	36.5	457	40.4	471	44.3	485	48.2	498	52.1	511	55.9
94000	2522	408	27.4	422	30.9	436	34.5	450	38.2	464	42.1	478	46.1	492	50.2	505	54.5	518	58.7	530	62.8
100400	2694	434	32.9	447	36.5	460	40.4	473	44.3	487	48.4	499	52.5	512	56.8	525	61.3	538	65.8	550	70.4
106800	2866	460	39.2	472	42.9	485	47.0	497	51.1	509	55.4	522	59.8	534	64.2	546	68.8	558	73.5	570	78.3
113200	3038	487	46.1	498	50.0	510	54.4	521	58.7	532	63.1	544	67.7	556	72.4	567	77.1	579	81.9	590	87.0
119600	3209	513	53.9	523	58.1	535	62.5	546	67.1	556	71.7	567	76.5	579	81.3	590	86.3	600	91.2	611	96.4
126000	3381	539	62.6	549	66.9	560	71.5	570	76.3	581	81.2	591	86.1	601	91.1	612	96.3	622	102	632	107

CFM	OV	STATIC PRESSURE (in. wg)																			
		2.50		3.00		3.50		4.00		4.50		5.00		5.50		6.00		6.50		7.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
54000	1449	430	30.6	463	37.0	496	44.1	528	51.5												
60400	1621	441	34.2	473	41.0	503	48.1	533	55.7	562	63.7	590	72.0								
66800	1792	454	38.2	484	45.4	514	52.9	542	60.7	568	68.6	595	77.2	622	86.1	647	95.2	671	105		
73200	1964	470	43.0	497	50.3	525	58.0	552	66.2	579	74.7	603	83.2	627	92.0	652	102	676	111	700	121
79600	2136	487	48.2	513	55.9	539	63.9	563	72.1	589	81.0	614	90.1	637	99.3	660	109	682	118	705	129
86000	2308	506	54.3	530	62.1	555	70.5	578	79.1	600	87.8	625	97.3	648	107	671	117	692	127	713	137
92400	2479	525	61.0	549	69.2	571	77.7	594	86.7	616	95.9	637	105	659	115	681	125	703	136	724	147
98800	2651	545	68.4	568	77.1	590	85.9	611	95.0	632	105	653	114	673	124	692	134	714	145	734	156
105200	2823	565	76.3	588	85.6	609	94.9	629	104	649	114	669	124	689	135	708	145	726	156	745	167
111600	2995	585	84.7	608	94.8	629	105	648	115	667	125	686	135	705	146	724	156	742	168	759	179
118000	3166	606	94.0	628	105	649	115	668	126	687	136	705	147	722	157	740	169	758	180	776	192
124400	3338	627	104	648	115	669	126	688	137	706	148	724	159	741	170	757	182	775	193	792	206
130800	3510	649	115	669	126	689	138	708	150	726	161	743	173	760	184	776	196	792	208	808	220
137200	3682	671	127	690	139	709	151	728	163	746	175	763	188	780	200	796	212	811	224	829	236
143600	3853	694	140	712	152	730	164	748	177	766	190	783	203	800	216	815	228	831	241	846	254
150000	4025	717	154	735	167	752	179	769	192	786	205	803	219	820	232	835	246	850	259	865	272

CFM	OV	STATIC PRESSURE (in. wg)																			
		7.00		7.50		8.00		8.50		9.00		10.00		11.00		12.00		13.00		14.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
90000	2415	720	143	740	153	759	164	778	175	799	187	838	211	876	236						
96200	2581	730	152	750	163	769	175	788	186	806	197	843	221	881	247	917	273	951	299		
102400	2748	740	162	760	174	780	185	798	197	817	209	852	233	886	258	921	285	956	312	989	340
108600	2914	752	173	771	185	790	197	809	209	827	221	862	246	895	272	927	298	961	326	994	354
114800	3081	767	185	784	197	801	208	819	221	837	234	872	260	905	286	937	313	968	340	999	369
121000	3247	783	198	800	210	816	222	832	234	848	247	883	274	916	301	948	329	978	357	1007	386
127200	3413	799	212	816	224	832	237	847	249	863	262	893	288	926	317	958	345	988	374	1018	404
133400	3580	815	226	831	239	848	252	863	265	878	278	908	305	937	333	968	362	999	392	1028	423
139600	3746	834	243	848	255	863	268	879	282	894	296	923	323	951	351	979	380	1009	411	1038	442
145800	3913	852	260	867	273	881	286	895	299	910	313	939	342	967	371	994	400	1020	430		
152000	4079	871	278	886	291	900	305	913	319	927	332	955	362	983	391	1009	421	1035	452		
158200	4245	890	297	905	311	918	325	932	339	945	353	971	382	998	413	1025	444				
164400	4412	910	318	924	332	937	346	951	361	964	375	989	405	1014	435						
170600	4578	929	338	943	354	956	369	970	384	983	399	1008	429	1032	460						
176800	4745	948	360	962	376	976	392	989	407	1002	423	1027	454								
183000	4911	968	383	982	399	995	416	1008	432	1021	448										

Performance certified is for model BIDW Arrangement 3, Installation Type B: free inlet, ducted outlet.
Performance ratings do not include the effects of appurtenances (accessories).
Power rating (BHP) does not include transmission losses.



Class	Max RPM
I	633
II	829
III	1041

% WOV = (CFM X 100) / (RPM X 238)

Sound Power [dB Ref 10^{-12} watts]

RPM	%WOV	Inlet Sound Power, L_{Wi} 1	2	3	4	5	6	7	8	L_{Wi}A
200	100	89	86	83	79	74	69	64	58	81
	80	88	86	83	79	74	69	64	58	81
	60	88	86	82	79	74	69	64	58	80
	50	87	85	82	79	74	69	63	57	80
	40	88	85	82	79	74	69	64	58	80
300	100	95	92	89	85	82	75	68	63	87
	80	93	89	87	84	80	73	66	60	85
	60	90	88	87	84	80	73	66	61	85
	50	89	87	86	84	80	73	67	62	85
	40	90	87	86	84	80	73	67	62	85
400	100	107	99	94	91	87	81	76	71	93
	80	104	95	91	89	84	77	72	68	90
	60	101	92	89	88	84	77	73	70	89
	50	101	91	88	88	84	77	73	70	89
	40	101	92	89	88	84	77	74	71	89
550	100	110	108	101	99	96	91	86	81	102
	80	107	105	98	95	91	87	82	78	98
	60	104	101	94	91	87	84	81	79	94
	50	103	100	93	91	87	84	82	79	94
	40	103	99	93	90	87	84	82	80	93
750	100	115	118	110	108	106	102	98	95	111
	80	113	115	107	103	100	95	92	88	106
	60	108	111	102	99	95	91	89	88	102
	50	108	111	102	99	95	92	90	88	102
	40	110	110	101	98	95	92	90	89	102
1041	100	121	126	120	115	114	111	107	103	120
	80	117	124	116	111	109	104	101	97	115
	60	113	119	112	107	105	99	97	96	111
	50	114	119	112	107	105	100	98	96	111
	40	118	118	111	106	104	100	98	97	110

RPM	%WOV	Outlet Sound Power, L_{Wo} 1	2	3	4	5	6	7	8	L_{Wo}A
200	100	88	83	79	76	70	61	53	44	77
	80	87	82	78	75	70	61	52	43	76
	60	84	80	76	73	68	59	50	43	74
	50	84	80	76	73	68	59	51	43	74
	40	83	79	75	73	68	59	51	43	74
300	100	102	92	86	83	79	72	64	58	86
	80	98	89	83	81	77	70	62	56	83
	60	98	88	81	79	75	68	61	56	81
	50	95	87	81	78	75	68	61	57	81
	40	94	86	81	79	75	69	62	57	81
400	100	113	100	93	90	86	80	74	67	93
	80	110	97	90	87	83	77	71	66	90
	60	106	93	86	84	79	74	69	65	87
	50	105	92	86	83	79	74	69	65	86
	40	106	92	85	82	79	74	70	66	86
550	100	113	108	102	100	96	91	85	78	102
	80	110	105	99	96	91	86	80	74	98
	60	107	101	95	92	87	82	78	75	94
	50	106	100	94	91	86	82	78	75	93
	40	106	100	93	90	86	82	79	75	93
750	100	117	117	111	109	106	103	98	92	112
	80	114	114	107	105	101	97	92	85	107
	60	110	110	103	100	95	91	87	83	102
	50	109	109	102	99	94	91	88	83	101
	40	110	108	101	98	94	91	88	83	101
1041	100	122	125	119	117	115	112	108	102	120
	80	119	123	114	114	110	106	102	95	116
	60	116	119	110	109	105	100	97	92	111
	50	116	117	109	108	104	99	97	93	110
	40	117	117	109	107	103	99	97	93	109

The sound power level ratings shown are in decibels, referred to 10^{-12} watts calculated per AMCA Standard 301. Values shown are for inlet L_{Wi}, L_{Wi}A and outlet L_{Wo}, L_{Wo}A sound power levels for Installation Type B: free inlet, ducted outlet. Outlet ratings include the effects of duct end correction. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.

66 BIDW

Wheel Diameter = 66 in.
Outlet Area = 45.08 ft.^{2}
Tip Speed = 17.28 x RPM
Maximum BHP = (RPM/114)^3

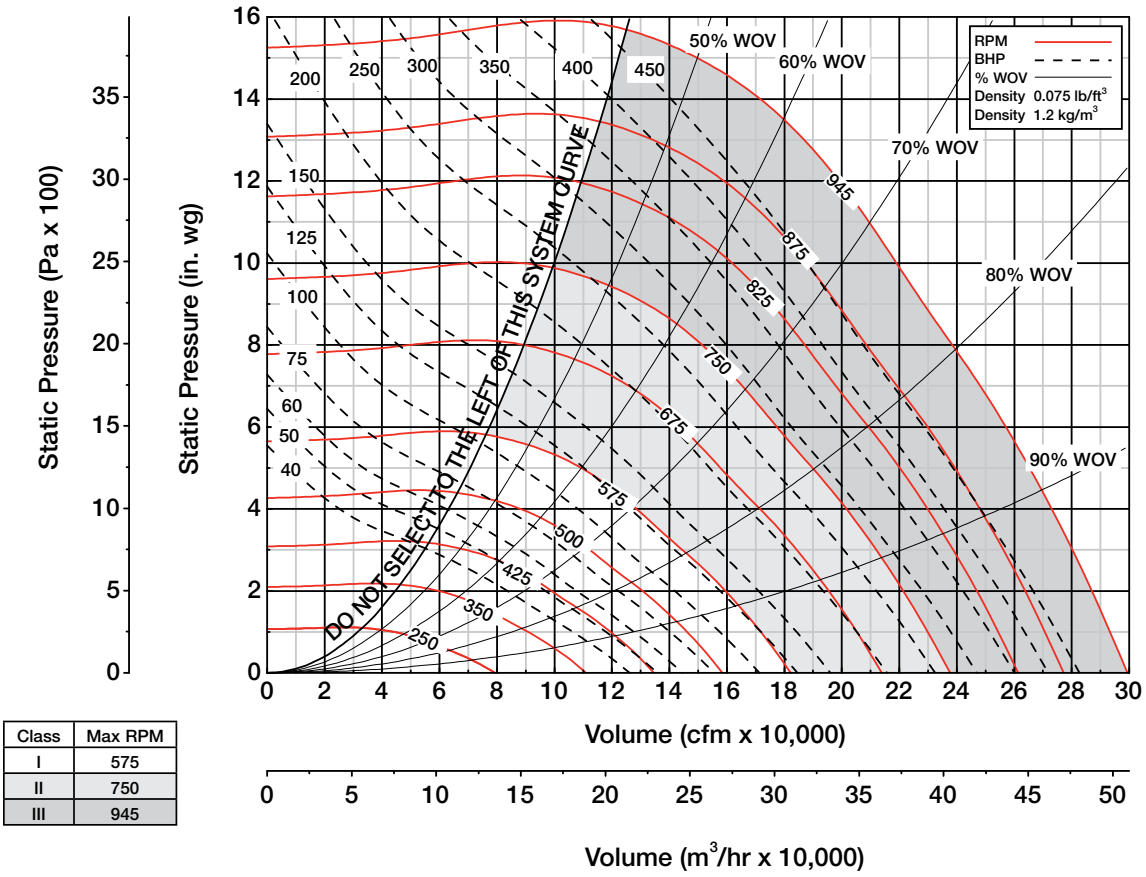
Minimum Starting HP = 40
Maximum RPM Class I = 575
Maximum RPM Class II = 750
Maximum RPM Class III = 945

CFM	OV	STATIC PRESSURE (in. wg)																			
		0.25		0.50		0.75		1.00		1.25		1.50		1.75		2.00		2.25		2.50	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
36000	798	152	2.41	184	4.11	214	6.12	242	8.33	268	10.8										
43700	969	170	3.38	199	5.33	225	7.48	250	9.89	273	12.4	296	15.2	317	18.2						
51400	1140	190	4.66	216	6.92	239	9.24	261	11.8	283	14.5	304	17.5	323	20.5	342	23.7	361	27.2	379	30.7
59100	1311	210	6.30	235	8.82	256	11.4	276	14.1	295	17.1	314	20.1	333	23.4	350	26.8	367	30.3	384	33.9
66800	1481	232	8.37	253	11.1	274	14.1	293	17.0	310	20.1	327	23.3	344	26.7	360	30.2	377	34.0	393	37.8
74500	1652	254	10.9	273	13.9	292	17.1	311	20.4	327	23.7	342	27.0	358	30.7	373	34.4	387	38.1	403	42.2
82200	1823	276	14.0	294	17.2	311	20.6	329	24.2	345	27.9	360	31.5	374	35.2	388	39.1	402	43.1	415	47.2
89900	1994	299	17.6	315	21.0	331	24.7	347	28.5	363	32.5	377	36.6	391	40.5	404	44.5	417	48.7	430	53.0
97600	2165	322	21.9	337	25.6	352	29.5	366	33.5	381	37.7	395	42.1	409	46.5	421	50.8	434	55.1	445	59.5
105300	2335	345	26.8	359	30.8	373	34.9	387	39.2	400	43.6	414	48.2	427	53.0	439	57.7	451	62.3	463	67.0
113000	2506	369	32.6	382	36.7	394	41.1	407	45.6	420	50.3	432	55.0	445	60.1	457	65.1	469	70.2	480	75.2
120700	2677	392	39.1	404	43.5	416	48.1	428	52.8	440	57.8	452	62.7	464	67.9	476	73.3	487	78.7	498	84.2
128400	2848	416	46.5	427	51.0	438	56.0	449	60.9	461	66.1	472	71.3	483	76.6	494	82.2	505	87.9	516	93.7
136100	3019	440	54.8	450	59.5	461	64.7	471	70.0	482	75.3	493	80.8	503	86.4	513	92.0	524	97.9	535	104
143800	3189	463	64.1	473	69.0	483	74.4	493	79.9	503	85.5	513	91.2	524	97.1	534	103	543	109	553	115
151500	3360	487	74.4	496	79.6	506	85.1	516	90.9	525	96.7	534	103	544	109	554	115	563	121	572	128

CFM	OV	STATIC PRESSURE (in. wg)																			
		2.50		3.00		3.50		4.00		4.50		5.00		5.50		6.00		6.50		7.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
63000	1397	388	35.8	419	43.6	450	52.1														
70800	1570	398	40.0	427	48.2	455	56.6	483	65.9	510	75.4	535	85.3								
78600	1743	408	44.7	437	53.3	464	62.3	490	71.6	514	81.2	540	91.6	564	102	587	113				
86400	1916	423	50.3	448	59.0	474	68.4	499	78.2	523	88.2	546	98.5	568	109	591	121	613	132	635	144
94200	2089	438	56.5	463	65.7	486	75.2	509	85.3	533	95.9	555	107	577	118	597	129	618	141	639	153
102000	2262	455	63.7	478	73.1	500	83.1	522	93.3	543	104	565	115	587	127	607	139	627	151	645	163
109800	2435	473	71.7	494	81.5	515	91.7	536	103	556	113	575	125	596	137	617	149	636	162	655	174
117600	2608	491	80.5	512	90.8	532	101	551	112	571	124	590	136	608	147	627	160	646	173	665	186
125400	2781	509	89.9	530	101	549	112	568	123	586	135	605	147	623	160	640	172	656	185	675	199
133200	2954	528	100	548	112	567	124	585	136	602	147	620	160	637	173	654	186	671	199	687	213
141000	3127	546	111	566	124	585	136	603	149	620	161	636	174	653	187	669	200	686	214	702	228
148800	3300	565	123	585	136	604	150	621	163	638	176	654	189	670	202	685	216	701	230	716	245
156600	3473	586	136	604	150	622	164	639	178	656	192	672	206	687	219	702	233	716	248	731	262
164400	3646	606	151	623	164	641	179	658	194	674	209	690	223	705	238	720	252	734	267	748	282
172200	3819	627	166	643	181	660	195	676	211	693	226	708	242	723	257	738	272	752	287	765	303
180000	3992	648	183	664	198	679	213	695	229	711	245	727	261	741	277	756	293	770	309	783	325

CFM	OV	STATIC PRESSURE (in. wg)																			
		7.00		7.50		8.00		8.50		9.00		10.00		11.00		12.00		13.00		14.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
108000	2395	653	172	671	184	689	197	707	211	726	225	762	254	796	284						
116000	2573	663	184	681	197	699	211	716	224	732	238	766	267	800	298	833	329	864	361		
124000	2750	673	196	691	210	709	224	726	239	742	253	774	282	805	312	838	345	869	378	899	412
132000	2928	685	210	701	224	719	239	736	254	752	269	784	299	814	330	843	362	874	395	904	430
140000	3105	700	226	715	240	730	254	746	270	763	285	794	317	824	349	853	381	881	415	908	449
148000	3283	715	243	730	258	745	272	759	287	773	302	804	335	834	368	863	402	891	436	918	471
156000	3460	730	261	745	276	760	292	774	307	788	323	815	354	845	388	873	423	901	459	928	495
164000	3637	747	281	761	296	775	312	790	328	803	344	830	377	856	410	884	446	911	482	938	519
172000	3815	765	302	778	317	791	333	805	350	819	366	845	400	871	434	895	469	921	506		
180000	3992	783	325	796	341	809	357	821	373	834	390	860	425	886	460	910	496	933	533		
188000	4170	801	349	814	365	827	382	839	399	851	416	876	451	901	487	925	524				
196000	4347	820	374	833	392	845	409	857	426	869	444	893	479	916	516	940	554				
204000	4525	839	401	851	419	864	437	876	455	888	473	911	509	933	460						
212000	4702	857	429	870	448	882	467	894	485	906	504	929	541								
220000	4880	876	458	889	478	901	498	913	517	925	536										
228000	5057	896	488	908	509	920	529	932	550	943	571										

Performance certified is for model BIDW Arrangement 3, Installation Type B: free inlet, ducted outlet.
Performance ratings do not include the effects of appurtenances (accessories).
Power rating (BHP) does not include transmission losses.



Class	Max RPM
I	575
II	750
III	945

% WOV = (CFM X 100) / (RPM X 317)

Sound Power [dB Ref 10^{-12} watts]

RPM	%WOV	Inlet Sound Power, L_{Wi} 1	2	3	4	5	6	7	8	L_{Wi}A
180	100	89	86	83	79	74	69	63	57	81
	80	89	86	83	79	74	69	63	57	81
	60	88	86	82	79	74	68	63	57	80
	50	87	85	82	79	74	68	63	56	80
	40	88	85	82	79	74	69	64	58	80
250	100	93	90	86	84	79	72	66	60	85
	80	90	88	85	82	77	69	63	58	83
	60	88	87	85	82	77	70	64	58	83
	50	87	86	84	82	77	70	65	59	83
	40	87	86	84	82	77	70	65	60	83
350	100	104	98	92	91	86	80	75	70	92
	80	101	95	90	89	83	76	71	68	89
	60	98	92	88	88	82	76	72	69	88
	50	97	91	88	88	82	76	72	69	88
	40	97	91	88	88	82	77	73	70	89
500	100	112	108	101	100	96	91	86	81	102
	80	109	105	98	96	91	87	83	79	98
	60	106	101	94	92	88	84	82	79	94
	50	105	100	93	92	87	84	82	80	94
	40	104	99	93	91	87	85	82	80	94
700	100	117	118	111	109	107	103	99	96	112
	80	115	116	107	104	100	96	93	89	107
	60	111	111	103	100	96	93	91	89	103
	50	110	111	103	100	96	93	91	89	103
	40	112	110	102	99	95	93	92	90	103
945	100	122	127	120	116	115	111	107	104	120
	80	119	125	116	112	109	105	101	97	115
	60	115	120	112	107	105	100	98	96	111
	50	115	120	112	107	105	100	98	97	111
	40	118	120	111	106	104	100	99	97	111

RPM	%WOV	Outlet Sound Power, L_{Wo} 1	2	3	4	5	6	7	8	L_{Wo}A
180	100	88	83	79	76	69	61	52	44	77
	80	87	82	78	75	69	61	51	42	76
	60	84	80	76	73	67	58	50	42	74
	50	84	80	76	73	67	58	50	42	74
	40	83	79	75	73	67	58	50	42	74
250	100	98	89	84	82	77	69	62	55	83
	80	94	86	82	79	74	66	60	54	81
	60	94	85	80	77	72	65	58	53	79
	50	92	84	79	77	72	65	59	55	78
	40	91	83	79	77	73	65	59	55	78
350	100	110	98	93	90	85	79	73	66	92
	80	107	95	89	87	82	76	70	65	89
	60	102	91	86	83	79	73	68	64	85
	50	101	90	85	82	78	73	69	65	85
	40	102	90	85	82	78	73	69	65	85
500	100	114	107	102	100	96	91	85	78	102
	80	112	104	100	96	91	86	80	73	98
	60	109	100	95	92	87	82	79	75	94
	50	107	99	94	91	86	82	79	75	93
	40	108	99	94	90	86	82	79	76	93
700	100	118	118	112	110	108	104	98	93	113
	80	115	114	108	106	102	98	92	85	108
	60	112	110	104	101	96	92	88	84	103
	50	111	109	103	100	95	92	89	84	102
	40	111	108	102	99	95	92	89	84	102
945	100	123	127	119	118	115	112	107	102	121
	80	121	124	115	114	110	106	102	95	116
	60	117	120	111	110	105	100	97	92	112
	50	117	119	110	108	104	100	97	93	111
	40	118	118	109	108	103	99	97	93	110

The sound power level ratings shown are in decibels, referred to 10^{-12} watts calculated per AMCA Standard 301. Values shown are for inlet L_{Wi}, L_{Wi}A and outlet L_{Wo}, L_{Wo}A sound power levels for Installation Type B: free inlet, ducted outlet. Outlet ratings include the effects of duct end correction. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.

73 BIDW

Wheel Diameter = 73 in.
Outlet Area = 55.15 ft.^{2}
Tip Speed = 19.11 x RPM
Maximum BHP = (RPM/96.2)^3

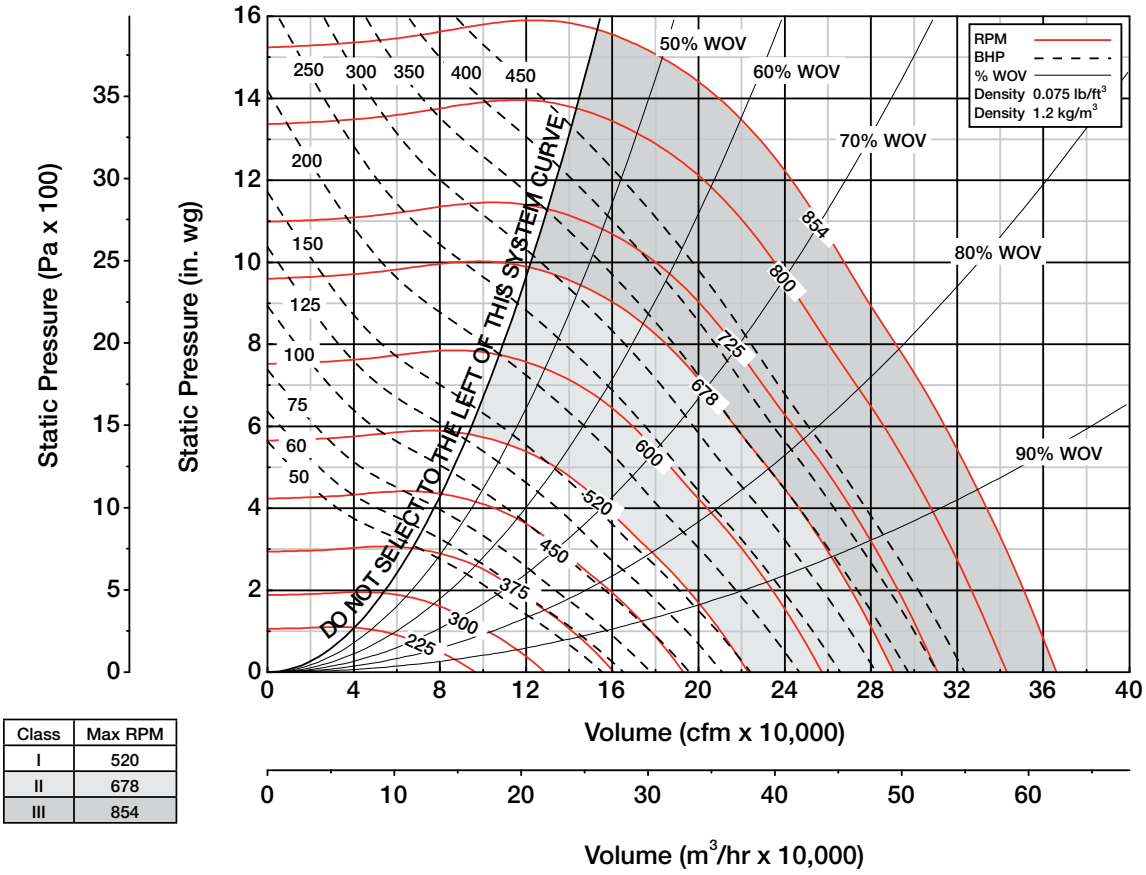
Minimum Starting HP = 50
Maximum RPM Class I = 520
Maximum RPM Class II = 678
Maximum RPM Class III = 854

CFM	OV	STATIC PRESSURE (in. wg)																			
		0.25		0.50		0.75		1.00		1.25		1.50		1.75		2.00		2.25		2.50	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
44000	797	137	2.94	166	5.03	194	7.48	218	10.2	242	13.2										
53600	971	154	4.16	180	6.55	203	9.18	226	12.1	247	15.3	267	18.6	287	22.3						
63200	1145	172	5.76	196	8.54	217	11.4	237	14.5	256	17.9	275	21.5	292	25.2	309	29.1	327	33.3	343	37.7
72800	1320	191	7.83	213	10.9	233	14.2	250	17.5	268	21.0	284	24.8	301	28.8	317	33.0	332	37.3	347	41.6
82400	1494	211	10.4	230	13.8	249	17.5	266	21.1	281	24.8	297	28.8	312	33.0	326	37.3	341	41.9	356	46.6
92000	1668	231	13.7	249	17.3	266	21.2	282	25.4	297	29.4	311	33.6	325	38.0	338	42.5	351	47.2	365	52.1
101600	1842	252	17.5	268	21.5	283	25.7	299	30.2	313	34.7	327	39.2	339	43.7	352	48.5	365	53.5	377	58.5
111200	2016	273	22.1	287	26.4	302	30.9	316	35.6	330	40.6	343	45.6	356	50.5	367	55.4	378	60.5	390	65.8
120800	2190	294	27.6	308	32.2	321	37.0	334	41.9	347	47.2	360	52.6	372	58.0	383	63.3	394	68.7	405	74.1
130400	2364	316	34.0	328	38.8	340	43.9	353	49.2	364	54.6	377	60.3	389	66.2	400	72.1	411	77.8	421	83.5
140000	2538	337	41.3	349	46.4	360	51.8	372	57.4	383	63.1	394	69.0	406	75.2	417	81.5	427	87.9	437	94.0
149600	2712	359	49.6	370	55.0	380	60.7	391	66.6	402	72.7	412	78.8	423	85.1	433	91.8	444	98.5	454	105
159200	2886	381	59.1	390	64.7	401	70.8	411	76.9	421	83.3	431	89.8	441	96.4	451	103	461	110	470	117
168800	3060	403	69.7	412	75.5	421	81.9	431	88.4	440	95.0	450	102	459	109	469	116	478	123	487	131
178400	3234	425	81.6	433	87.7	442	94.3	451	101	460	108	469	115	478	122	487	130	496	137	505	145
188000	3408	446	94.8	455	101	463	108	472	115	480	123	489	130	497	137	506	145	514	153	523	161

CFM	OV	STATIC PRESSURE (in. wg)																			
		2.50		3.00		3.50		4.00		4.50		5.00		5.50		6.00		6.50		7.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
80000	1450	354	45.3	380	54.8	408	65.4	434	76.3												
89600	1624	362	50.7	389	60.9	414	71.4	438	82.6	462	94.5	485	107								
99200	1798	373	56.8	398	67.3	423	78.6	445	90.1	467	102	489	115	511	128	532	141	552	155		
108800	1972	387	63.9	409	74.8	432	86.2	454	98.4	476	111	496	124	516	137	536	151	556	165	575	180
118400	2146	401	71.9	423	83.3	443	95.1	463	107	485	121	505	134	524	148	543	162	561	176	579	191
128000	2320	417	81.1	436	92.7	457	105	476	118	494	131	514	145	533	159	552	174	569	189	586	204
137600	2495	433	91.3	452	104	471	116	489	129	507	143	525	157	542	171	561	187	578	202	595	218
147200	2669	450	102	468	115	486	128	503	142	521	156	538	171	554	185	570	200	587	217	604	233
156800	2843	466	114	485	128	502	142	519	156	535	170	551	185	568	201	583	217	598	232	613	249
166400	3017	483	127	501	142	519	157	535	172	550	186	565	201	581	217	597	234	611	250	626	267
176000	3191	500	141	518	157	535	173	551	188	567	204	581	219	595	235	610	252	625	269	639	287
185600	3365	518	156	535	173	552	189	568	206	583	222	597	239	611	255	625	272	639	289	653	307
195200	3539	536	173	552	190	569	207	584	225	599	242	614	259	627	277	641	294	654	312	666	330
204800	3713	555	192	570	209	586	226	601	245	616	263	630	282	644	300	657	318	670	336	682	354
214400	3887	574	212	589	229	603	247	618	266	633	285	647	305	660	324	673	343	686	362	698	381
224000	4061	593	233	607	251	621	270	635	289	650	309	664	329	677	349	690	369	702	389	714	409

CFM	OV	STATIC PRESSURE (in. wg)																			
		7.00		7.50		8.00		8.50		9.00		10.00		11.00		12.00		13.00		14.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
130000	2357	588	207	605	222	621	238	638	255	655	272	688	307	718	343						
140000	2538	598	222	614	238	630	254	645	271	660	288	692	324	723	361	752	399	780	438		
150000	2719	607	238	623	254	639	272	655	289	670	306	698	342	727	379	756	419	785	459	812	500
160000	2901	617	254	633	272	649	290	664	308	679	326	708	363	735	400	761	439	789	480	816	523
170000	3082	631	274	645	291	658	308	673	327	688	346	717	385	744	424	770	463	795	504	821	546
180000	3263	645	295	659	313	672	331	685	349	698	367	726	407	753	448	779	489	805	531	829	573
190000	3445	659	317	673	336	686	355	699	373	711	392	736	431	763	473	789	516	814	559	838	603
200000	3626	674	342	687	360	700	380	713	399	725	419	750	459	773	499	798	543	823	588	847	633
210000	3807	691	368	703	387	714	406	727	426	740	447	764	488	786	530	809	573	833	618		
220000	3989	708	397	719	416	731	436	742	456	754	476	778	519	800	562	822	606	844	651		
230000	4170	725	427	736	447	748	468	759	488	770	509	792	552	815	596	836	642				
240000	4351	742	459	753	480	765	501	776	522	786	544	807	587	829	632	850	679				
250000	4533	759	492	770	514	782	536	793	558	803	580	824	625	844	670						
260000	4714	776	527	788	550	799	574	810	596	820	619	841	665								
270000	4895	794	563	805	588	816	612	827	636	837	660										
280000	5077	812	602	823	627	834	652	844	677												

Performance certified is for model BIDW Arrangement 3, Installation Type B: free inlet, ducted outlet.
Performance ratings do not include the effects of appurtenances (accessories).
Power rating (BHP) does not include transmission losses.



Class	Max RPM
I	520
II	678
III	854

% WOV = (CFM X 100) / (RPM X 429)

Sound Power [dB Ref 10^{-12} watts]

		Inlet Sound Power, L_{Wi}								
RPM	%WOV	1	2	3	4	5	6	7	8	L_{Wi}A
150	100	87	85	81	77	71	67	61	55	79
	80	87	85	80	77	71	67	61	55	79
	60	87	84	80	77	71	66	61	55	78
	50	85	84	80	77	71	66	60	53	78
	40	86	84	80	77	71	67	61	56	78
200	100	89	88	83	81	75	67	62	57	82
	80	86	86	82	80	73	65	60	54	80
	60	84	85	82	80	73	65	60	55	80
	50	84	85	82	80	73	67	61	56	80
	40	84	85	81	80	73	66	62	57	80
300	100	101	97	90	91	84	79	74	69	91
	80	97	94	88	89	80	74	70	66	89
	60	94	91	87	88	79	74	71	68	88
	50	93	90	86	88	79	74	71	68	88
	40	93	91	86	88	80	75	72	70	88
400	100	111	104	98	98	93	88	83	78	99
	80	108	100	95	93	88	84	80	76	95
	60	105	96	91	90	84	81	79	77	92
	50	104	95	90	89	84	82	80	77	91
	40	102	94	90	89	84	82	80	78	91
600	100	118	116	109	109	106	102	98	95	111
	80	116	112	106	104	99	95	92	88	106
	60	112	108	102	100	94	92	90	88	102
	50	111	108	101	99	94	92	90	89	102
	40	111	107	101	98	94	93	91	89	101
854	100	124	128	120	116	115	112	108	104	121
	80	121	126	116	112	109	105	101	98	116
	60	117	122	112	108	105	101	99	97	112
	50	117	121	112	108	105	101	99	97	112
	40	119	121	111	107	104	101	99	98	111

		Outlet Sound Power, L_{Wo}								
RPM	%WOV	1	2	3	4	5	6	7	8	L_{Wo}A
150	100	86	81	77	74	66	58	49	41	75
	80	85	80	76	73	66	57	48	39	74
	60	82	78	74	72	64	55	47	39	72
	50	82	78	74	72	64	55	47	39	72
	40	81	77	74	72	64	55	47	39	72
200	100	92	85	82	79	73	64	58	52	80
	80	89	82	79	77	70	62	56	50	77
	60	89	80	77	74	69	60	55	50	75
	50	87	79	76	74	69	60	56	51	75
	40	86	79	77	74	69	61	56	52	75
300	100	106	95	92	89	84	77	71	64	90
	80	103	92	89	86	81	74	69	63	87
	60	98	88	85	82	77	71	67	63	84
	50	97	88	84	81	77	71	67	64	83
	40	98	88	83	81	77	72	68	64	83
400	100	113	102	100	97	93	87	81	74	99
	80	110	99	97	93	88	82	76	70	95
	60	107	95	93	89	83	79	76	72	91
	50	105	94	92	88	83	79	76	72	90
	40	106	93	91	87	83	80	76	73	90
600	100	119	114	111	109	107	103	97	91	112
	80	116	110	108	105	101	97	90	83	107
	60	112	106	104	100	95	91	87	83	102
	50	111	105	103	99	94	92	87	83	101
	40	110	105	102	98	93	91	87	83	100
854	100	125	128	120	118	116	113	108	102	121
	80	122	125	116	114	110	107	102	95	117
	60	119	122	112	110	105	101	97	92	112
	50	118	120	111	109	104	100	97	93	111
	40	119	119	110	108	103	100	97	93	110

The sound power level ratings shown are in decibels, referred to 10^{-12} watts calculated per AMCA Standard 301. Values shown are for inlet L_{Wi}, L_{Wi}A and outlet L_{Wo}, L_{Wo}A sound power levels for Installation Type B: free inlet, ducted outlet. Outlet ratings include the effects of duct end correction. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.

18 AFDW

Wheel Diameter = 18¼ in.
Outlet Area = 3.45 ft.^{2}
Tip Speed = 4.78 x RPM
Maximum BHP = (RPM/1081)^3

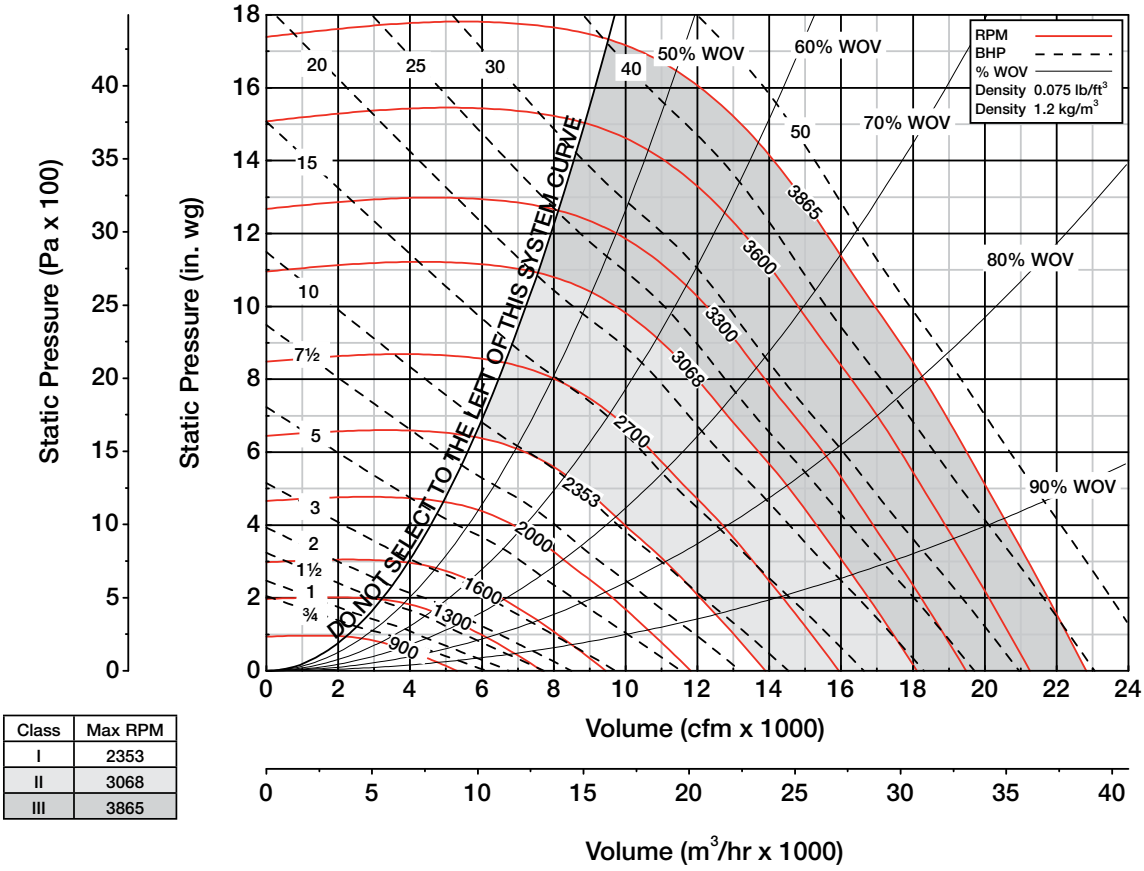
Minimum Starting HP = ¾
Maximum RPM Class I = 2353
Maximum RPM Class II = 3068
Maximum RPM Class III = 3865

CFM	OV	STATIC PRESSURE (in. wg)																			
		0.25		0.50		0.75		1.00		1.25		1.50		1.75		2.00		2.25		2.50	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
3000	869	652	0.22	767	0.36	868	0.51	968	0.69	1056	0.88	1148	1.08								
3600	1043	734	0.31	840	0.47	931	0.64	1016	0.82	1100	1.02	1180	1.24	1253	1.47	1330	1.71	1404	1.95		
4200	1217	821	0.42	916	0.60	1003	0.80	1079	0.99	1154	1.20	1224	1.42	1297	1.67	1365	1.93	1430	2.20	1493	2.47
4800	1391	911	0.56	997	0.77	1079	0.99	1153	1.21	1219	1.43	1285	1.67	1348	1.91	1410	2.17	1474	2.45	1534	2.75
5400	1565	1003	0.74	1083	0.97	1156	1.21	1227	1.46	1293	1.71	1353	1.96	1411	2.22	1469	2.48	1524	2.76	1579	3.05
6000	1739	1096	0.95	1170	1.21	1239	1.47	1304	1.74	1368	2.02	1427	2.30	1482	2.57	1534	2.85	1587	3.15	1639	3.45
6600	1913	1191	1.21	1260	1.49	1324	1.78	1384	2.07	1444	2.37	1502	2.67	1556	2.98	1607	3.28	1655	3.59	1703	3.90
7200	2086	1287	1.51	1351	1.82	1411	2.13	1469	2.44	1523	2.76	1578	3.09	1631	3.42	1681	3.76	1729	4.09	1775	4.42
7800	2260	1384	1.86	1444	2.19	1501	2.53	1555	2.87	1607	3.21	1656	3.56	1708	3.91	1757	4.27	1804	4.64	1849	5.01
8400	2434	1481	2.27	1537	2.62	1591	2.99	1642	3.36	1692	3.72	1740	4.08	1786	4.46	1833	4.84	1879	5.23	1924	5.62
9000	2608	1579	2.74	1631	3.11	1683	3.50	1732	3.89	1779	4.29	1825	4.67	1869	5.07	1912	5.47	1956	5.88	2000	6.29
9600	2782	1677	3.27	1727	3.67	1776	4.08	1822	4.49	1867	4.92	1911	5.33	1954	5.75	1995	6.16	2035	6.59	2077	7.03
10200	2956	1776	3.87	1823	4.29	1869	4.72	1914	5.16	1957	5.61	1999	6.06	2040	6.49	2080	6.93	2118	7.38	2156	7.83
10800	3130	1875	4.54	1920	4.99	1963	5.43	2006	5.90	2048	6.37	2088	6.84	2127	7.32	2166	7.78	2203	8.25	2240	8.72
11400	3304	1974	5.29	2017	5.76	2058	6.23	2099	6.71	2139	7.21	2178	7.70	2216	8.21	2253	8.70	2289	9.19	2325	9.68
12000	3478	2074	6.12	2115	6.61	2154	7.10	2193	7.61	2232	8.12	2269	8.65	2305	9.17	2341	9.70	2376	10.2	2411	10.7

CFM	OV	STATIC PRESSURE (in. wg)																			
		2.50		3.00		3.50		4.00		4.50		5.00		5.50		6.00		6.50		7.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
5000	1449	1549	2.84	1662	3.46	1767	4.11	1879	4.77	1983	5.46										
5600	1623	1597	3.17	1706	3.81	1810	4.50	1906	5.20	2002	5.93	2101	6.68	2195	7.44	2285	8.22				
6200	1797	1660	3.59	1756	4.22	1854	4.91	1950	5.66	2041	6.43	2127	7.22	2213	8.03	2303	8.85	2390	9.69	2473	10.5
6800	1971	1726	4.06	1819	4.73	1908	5.41	1995	6.14	2086	6.95	2171	7.78	2253	8.63	2331	9.50	2408	10.4	2491	11.3
7400	2144	1799	4.61	1885	5.29	1971	6.02	2053	6.76	2131	7.52	2216	8.38	2297	9.26	2375	10.2	2449	11.1	2521	12.0
8000	2318	1874	5.21	1958	5.94	2037	6.68	2117	7.46	2194	8.26	2267	9.07	2342	9.94	2419	10.9	2494	11.9	2565	12.8
8600	2492	1949	5.84	2032	6.65	2110	7.43	2183	8.22	2257	9.05	2330	9.91	2400	10.8	2467	11.7	2539	12.6	2610	13.7
9200	2666	2025	6.53	2107	7.38	2184	8.25	2256	9.09	2325	9.94	2394	10.8	2463	11.7	2529	12.7	2593	13.6	2655	14.5
9800	2840	2103	7.29	2183	8.19	2259	9.10	2330	10.0	2398	10.9	2463	11.8	2527	12.7	2593	13.7	2656	14.7	2718	15.7
10400	3014	2184	8.12	2260	9.06	2334	10.0	2405	11.0	2472	12.0	2537	12.9	2598	13.9	2658	14.8	2720	15.9	2781	16.9
11000	3188	2268	9.03	2338	10.0	2411	11.0	2481	12.0	2547	13.1	2611	14.1	2672	15.1	2731	16.1	2788	17.1	2845	18.2
11600	3362	2353	10.0	2421	11.0	2489	12.1	2557	13.1	2623	14.2	2686	15.3	2746	16.4	2804	17.5	2861	18.5	2915	19.6
12200	3536	2440	11.1	2506	12.2	2569	13.2	2635	14.3	2699	15.5	2761	16.6	2821	17.7	2879	18.9	2934	20.0	2988	21.1
12800	3710	2527	12.3	2591	13.4	2653	14.5	2713	15.6	2776	16.8	2837	18.0	2896	19.2	2954	20.4	3009	21.6	3063	22.7
13400	3884	2615	13.5	2678	14.7	2738	15.8	2797	17.0	2855	18.2	2915	19.4	2973	20.7	3029	21.9	3084	23.2	3137	24.4
14000	4057	2704	14.9	2765	16.1	2824	17.3	2881	18.5	2937	19.7	2993	21.0	3050	22.3	3105	23.5	3159	24.9	3212	26.2

CFM	OV	STATIC PRESSURE (in. wg)																			
		7.00		7.50		8.00		8.50		9.00		10.00		11.00		12.00		13.00		14.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
7500	2173	2529	12.2	2598	13.1	2670	14.1	2745	15.1	2818	16.1	2958	18.2								
8100	2347	2573	13.0	2642	14.0	2709	15.0	2775	16.0	2838	17.1	2977	19.2	3110	21.4	3237	23.6				
8700	2521	2618	13.8	2687	14.8	2754	15.9	2819	17.0	2882	18.1	3003	20.3	3128	22.6	3256	24.9	3378	27.3	3495	29.7
9300	2695	2666	14.7	2732	15.8	2798	16.9	2863	18.0	2926	19.1	3047	21.4	3163	23.8	3274	26.2	3396	28.6	3514	31.1
9900	2869	2728	15.9	2788	16.9	2845	17.9	2908	19.0	2971	20.2	3092	22.6	3207	25.0	3317	27.5	3423	30.0	3532	32.6
10500	3043	2791	17.1	2850	18.1	2908	19.2	2964	20.3	3018	21.3	3136	23.8	3251	26.3	3361	28.8	3467	31.5	3569	34.1
11100	3217	2856	18.4	2914	19.5	2971	20.6	3026	21.7	3080	22.8	3185	25.1	3296	27.6	3406	30.3	3511	33.0	3613	35.7
11700	3391	2927	19.8	2981	20.9	3035	22.0	3090	23.2	3143	24.4	3247	26.7	3346	29.0	3451	31.7	3556	34.5	3657	37.3
12300	3565	3001	21.4	3053	22.5	3104	23.6	3154	24.8	3207	26.0	3310	28.4	3408	30.9	3503	33.4	3601	36.1	3702	39.0
12900	3739	3075	23.0	3127	24.2	3177	25.0	3227	26.6	3275	27.8	3374	30.2	3471	32.8	3566	35.4	3656	38.0	3747	40.8
13500	3913	3150	24.7	3201	26.0	3251	27.2	3300	28.4	3348	29.7	3440	32.2	3535	34.8	3629	37.5	3719	40.2	3806	42.9
14100	4086	3225	26.5	3276	27.8	3326	29.1	3374	30.4	3421	31.7	3513	34.3	3601	36.9	3692	39.6	3782	42.4		
14700	4260	3301	28.3	3351	29.7	3401	31.1	3449	32.5	3496	33.8	3587	36.5	3674	39.2	3758	41.9	3846	44.8		
15300	4434	3377	30.3	3427	31.7	3476	33.1	3524	34.6	3570	36.0	3661	38.8	3747	41.6	3831	44.4				
15900	4608	3454	32.3	3504	33.8	3552	35.3	3599	36.7	3645	38.2	3735	41.3	3821	44.2						
16500	4782	3533	34.5	3581	36.0	3629	37.5	3675	39.1	3721	40.6	3810	43.7								

Performance certified is for model AFDW Arrangement 3, Installation Type B: free inlet, ducted outlet.
Performance ratings do not include the effects of appurtenances (accessories).
Power rating (BHP) does not include transmission losses.



Class	Max RPM
I	2353
II	3068
III	3865

% WOV = (CFM X 100) / (RPM X 5.90)

Sound Power [dB Ref 10^{-12} watts]

Inlet Sound Power, L_{Wi}										
RPM	%WOV	1	2	3	4	5	6	7	8	L_{Wi}A
600	100	73	72	73	72	65	59	53	48	72
	80	74	71	69	70	63	58	52	48	70
	60	72	70	67	70	63	58	52	48	69
	50	72	70	67	70	64	58	52	48	70
	40	73	70	67	71	64	58	52	48	71
900	100	77	83	80	78	72	66	58	54	79
	80	75	80	77	76	69	65	56	53	76
	60	74	75	73	75	69	65	57	53	75
	50	77	77	73	75	69	65	58	54	75
	40	79	78	73	75	70	65	58	54	76
1300	100	82	86	87	87	81	77	69	65	87
	80	79	83	84	85	78	74	68	63	85
	60	80	83	83	84	78	74	69	65	84
	50	83	85	83	84	78	74	69	65	84
	40	87	88	84	84	78	74	69	65	85
1900	100	89	90	95	93	88	83	78	74	94
	80	86	87	91	89	85	79	73	70	90
	60	88	86	88	87	83	78	75	73	88
	50	90	91	89	87	83	78	76	74	89
	40	93	97	92	88	83	79	76	74	90
2700	100	96	98	99	103	97	93	88	85	103
	80	96	95	96	102	95	89	83	80	101
	60	92	93	93	96	91	88	85	83	97
	50	94	95	94	95	91	88	86	84	97
	40	101	103	100	99	92	89	86	84	99
3865	100	102	107	107	109	109	103	98	94	112
	80	102	106	104	107	107	99	94	89	110
	60	98	103	102	103	102	97	94	92	106
	50	100	105	104	102	102	97	95	93	106
	40	107	112	111	106	104	98	95	93	109

Outlet Sound Power, L_{Wo}										
RPM	%WOV	1	2	3	4	5	6	7	8	L_{Wo}A
600	100	91	79	73	64	61	53	44	43	71
	80	92	79	70	60	57	52	44	43	70
	60	83	74	67	59	58	52	45	44	65
	50	86	76	67	59	58	52	45	44	66
	40	89	77	69	60	58	53	46	44	68
900	100	90	86	79	75	71	64	55	52	78
	80	84	84	77	69	65	60	51	50	74
	60	83	79	73	67	64	60	54	51	71
	50	91	81	73	66	64	60	54	52	72
	40	94	84	74	67	65	60	55	52	74
1300	100	97	90	88	84	81	74	66	60	86
	80	92	87	85	80	75	68	61	57	82
	60	90	85	82	76	71	66	62	60	79
	50	99	94	84	77	72	67	63	60	82
	40	102	95	85	77	73	68	64	61	84
1900	100	105	96	94	92	89	84	78	72	94
	80	98	92	92	87	85	79	72	67	90
	60	97	89	90	84	82	76	72	70	87
	50	102	95	89	84	81	76	73	71	88
	40	107	103	93	86	83	78	73	71	92
2700	100	112	104	99	102	99	94	89	84	103
	80	105	99	97	102	97	90	83	78	102
	60	104	97	94	97	93	87	83	79	98
	50	106	100	95	96	92	86	84	80	97
	40	114	109	102	95	93	88	84	81	100
3865	100	118	117	109	108	109	104	99	94	112
	80	112	111	105	107	108	101	94	88	111
	60	110	109	103	103	103	98	92	89	107
	50	112	112	105	102	102	97	92	90	106
	40	121	120	113	105	102	98	94	90	110

The sound power level ratings shown are in decibels, referred to 10^{-12} watts calculated per AMCA Standard 301. Values shown are for inlet L_{Wi}, L_{Wi}A and outlet L_{Wo}, L_{Wo}A sound power levels for Installation Type B: free inlet, ducted outlet. Outlet ratings include the effects of duct end correction. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.

20 AFDW

Wheel Diameter = 20 in.
Outlet Area = 4.14 ft.^{2}
Tip Speed = 5.24 x RPM
Maximum BHP = (RPM/930)^3

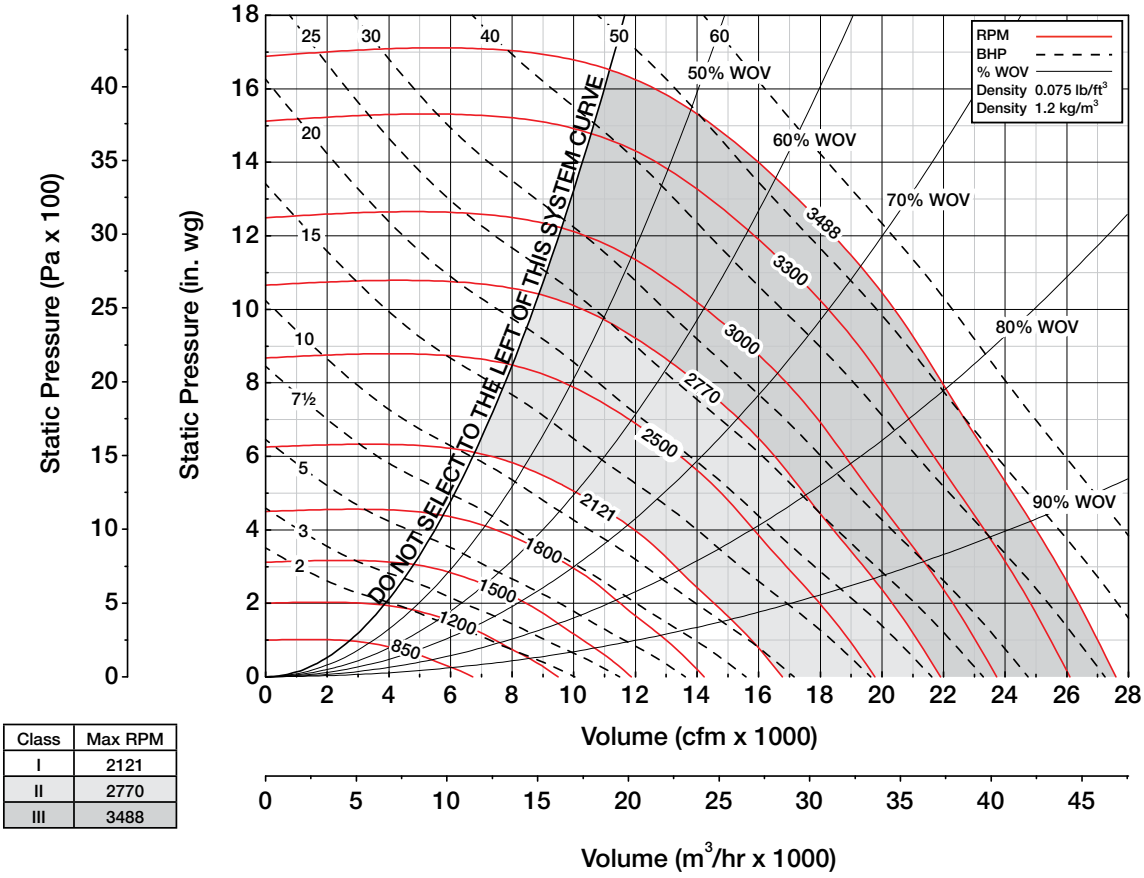
Minimum Starting HP = ¾
Maximum RPM Class I = 2121
Maximum RPM Class II = 2770
Maximum RPM Class III = 3488

CFM	OV	STATIC PRESSURE (in. wg)																			
		0.25		0.50		0.75		1.00		1.25		1.50		1.75		2.00		2.25		2.50	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
3200	772	550	0.20	672	0.37	779	0.56	875	0.76	970	0.99										
4000	966	629	0.30	732	0.49	828	0.70	917	0.93	999	1.17	1074	1.41	1152	1.69	1226	1.99				
4800	1159	713	0.42	803	0.63	888	0.87	969	1.12	1044	1.39	1117	1.67	1186	1.96	1250	2.25	1312	2.56	1378	2.90
5600	1352	800	0.57	884	0.82	957	1.08	1030	1.36	1101	1.65	1168	1.96	1230	2.27	1293	2.60	1353	2.93	1410	3.27
6400	1545	890	0.77	967	1.05	1036	1.34	1100	1.63	1164	1.95	1225	2.28	1286	2.63	1344	2.98	1398	3.34	1453	3.71
7200	1739	982	1.02	1052	1.33	1118	1.65	1177	1.97	1233	2.30	1291	2.66	1346	3.03	1401	3.41	1454	3.79	1505	4.19
8000	1932	1075	1.32	1140	1.66	1202	2.01	1258	2.37	1310	2.72	1361	3.09	1414	3.48	1464	3.89	1512	4.30	1562	4.72
8800	2125	1170	1.68	1230	2.05	1287	2.43	1341	2.82	1392	3.21	1439	3.60	1484	4.00	1533	4.43	1580	4.87	1625	5.32
9600	2318	1267	2.11	1321	2.50	1374	2.92	1426	3.34	1475	3.77	1521	4.19	1564	4.62	1606	5.05	1649	5.51	1693	5.98
10400	2512	1364	2.61	1414	3.03	1463	3.48	1512	3.93	1559	4.39	1604	4.86	1646	5.31	1686	5.77	1725	6.24	1763	6.72
11200	2705	1462	3.20	1507	3.63	1554	4.11	1599	4.60	1644	5.08	1687	5.58	1729	6.08	1768	6.57	1805	7.07	1842	7.57
12000	2898	1560	3.87	1601	4.32	1646	4.83	1689	5.34	1731	5.87	1772	6.39	1812	6.92	1851	7.47	1887	7.99	1923	8.52
12800	3091	1659	4.63	1697	5.11	1739	5.64	1779	6.18	1819	6.74	1858	7.29	1897	7.85	1934	8.42	1970	9.00	2005	9.56
13600	3285	1758	5.48	1794	5.99	1832	6.54	1871	7.11	1909	7.70	1946	8.29	1983	8.88	2019	9.48	2054	10.1	2088	10.7
14400	3478	1857	6.44	1891	6.98	1926	7.54	1964	8.15	2000	8.76	2035	9.39	2070	10.0	2105	10.6	2139	11.3	2172	11.9
15200	3671	1956	7.51	1989	8.08	2021	8.65	2057	9.29	2091	9.93	2125	10.6	2158	11.3	2191	11.9	2225	12.6	2257	13.2

CFM	OV	STATIC PRESSURE (in. wg)																			
		2.50		3.00		3.50		4.00		4.50		5.00		5.50		6.00		6.50		7.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
5600	1352	1410	3.27	1516	3.97	1628	4.76	1733	5.58												
6400	1545	1453	3.71	1559	4.46	1656	5.25	1749	6.07	1847	6.98	1940	7.91								
7200	1739	1505	4.19	1603	5.00	1699	5.85	1789	6.71	1874	7.60	1957	8.52	2045	9.53	2129	10.6	2210	11.6		
8000	1932	1562	4.72	1657	5.59	1745	6.49	1833	7.41	1918	8.36	1998	9.33	2074	10.3	2147	11.3	2227	12.4	2304	13.6
8800	2125	1625	5.32	1714	6.24	1801	7.19	1883	8.17	1962	9.18	2042	10.2	2118	11.2	2190	12.3	2261	13.4	2328	14.5
9600	2318	1693	5.98	1776	6.95	1858	7.96	1939	8.99	2015	10.1	2088	11.1	2162	12.2	2234	13.4	2304	14.5	2371	15.6
10400	2512	1763	6.72	1845	7.74	1921	8.80	1996	9.88	2072	11.0	2144	12.1	2213	13.3	2279	14.5	2348	15.7	2415	16.9
11200	2705	1842	7.57	1915	8.61	1990	9.72	2061	10.9	2130	12.0	2201	13.2	2270	14.4	2335	15.6	2399	16.9	2460	18.2
12000	2898	1923	8.52	1991	9.59	2059	10.7	2129	11.9	2196	13.1	2260	14.4	2327	15.6	2392	16.9	2455	18.2	2515	19.5
12800	3091	2005	9.56	2071	10.7	2134	11.8	2199	13.1	2265	14.3	2328	15.6	2388	16.9	2450	18.3	2512	19.6	2572	21.0
13600	3285	2088	10.7	2153	11.9	2214	13.1	2273	14.3	2335	15.6	2397	17.0	2456	18.3	2514	19.7	2570	21.1	2630	22.6
14400	3478	2172	11.9	2236	13.2	2296	14.5	2353	15.7	2408	17.0	2466	18.4	2525	19.8	2582	21.3	2638	22.7	2691	24.2
15200	3671	2257	13.2	2319	14.6	2378	15.9	2434	17.3	2488	18.6	2541	20.0	2595	21.4	2652	22.9	2706	24.5	2759	26.0
16000	3864	2342	14.7	2403	16.1	2461	17.5	2516	18.9	2569	20.3	2621	21.8	2671	23.2	2722	24.7	2776	26.3	2828	27.9
16800	4057	2429	16.2	2488	17.7	2545	19.2	2599	20.7	2651	22.2	2702	23.7	2751	25.2	2798	26.7	2846	28.2	2897	29.9
17600	4251	2516	17.9	2574	19.5	2629	21.0	2683	22.6	2734	24.2	2784	25.7	2832	27.3	2878	28.8	2924	30.4	2968	32.0

CFM	OV	STATIC PRESSURE (in. wg)																			
		7.00		7.50		8.00		8.50		9.00		10.00		11.00		12.00		13.00		14.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
8800	2125	2328	14.5	2396	15.6	2469	16.9	2539	18.1	2607	19.4	2734	21.9								
9600	2318	2371	15.6	2436	16.8	2499	18.0	2560	19.2	2624	20.5	2750	23.1	2874	25.9	2992	28.7				
10400	2512	2415	16.9	2480	18.1	2542	19.4	2603	20.6	2662	21.9	2770	24.4	2890	27.2	3008	30.2	3121	33.2	3230	36.2
11200	2705	2460	18.2	2524	19.5	2586	20.8	2647	22.1	2706	23.4	2813	26.0	2920	28.8	3024	31.6	3137	34.7	3246	37.9
12000	2898	2515	19.5	2574	20.9	2631	22.3	2691	23.6	2750	25.0	2856	27.8	2962	30.6	3064	33.5	3162	36.5	3262	39.6
12800	3091	2572	21.0	2631	22.4	2687	23.8	2742	25.3	2796	26.7	2899	29.5	3005	32.5	3107	35.5	3204	38.6	3298	41.7
13600	3285	2630	22.6	2688	24.0	2744	25.5	2799	27.0	2852	28.5	2946	31.4	3049	34.5	3150	37.6	3247	40.8	3341	44.0
14400	3478	2691	24.2	2745	25.7	2801	27.2	2855	28.8	2908	30.3	3002	33.4	3098	36.6	3194	39.8	3290	43.1	3384	46.4
15200	3671	2759	26.0	2810	27.5	2861	29.1	2913	30.7	2966	32.3	3058	35.4	3153	38.7	3245	42.1	3334	45.5	3427	48.9
16000	3864	2828	27.9	2879	29.5	2928	31.1	2977	32.7	3024	34.4	3114	37.6	3209	41.0	3300	44.5	3388	48.0		
16800	4057	2897	29.9	2948	31.5	2997	33.2	3045	34.9	3091	36.6	3172	39.9	3266	43.4	3356	47.0	3444	50.6		
17600	4251	2968	32.0	3018	33.7	3066	35.5	3113	37.2	3160	39.0	3237	42.3	3323	45.9	3413	49.6				
18400	4444	3048	34.4	3090	36.1	3136	37.8	3183	39.6	3229	41.4	3305	44.9	3388	48.6	3470	52.3				
19200	4637	3128	36.9	3170	38.7	3211	40.4	3253	42.2	3299	44.1	3373	47.6	3456	51.3						
20000	4830	3209	39.6	3251	41.4	3291	43.2	3331	45.0	3370	46.8	3442	50.4								
20800	5024	3291	42.5	3332	44.3	3372	46.2	3411	48.0	3449	49.9										

Performance certified is for model AFDW Arrangement 3, Installation Type B: free inlet, ducted outlet.
Performance ratings do not include the effects of appurtenances (accessories).
Power rating (BHP) does not include transmission losses.



Class	Max RPM
I	2121
II	2770
III	3488

% WOV = (CFM X 100) / (RPM X 7.91)

Sound Power [dB Ref 10^{-12} watts]

		Inlet Sound Power, L_{Wi}								
RPM	%WOV	1	2	3	4	5	6	7	8	L_{Wi}A
800	100	80	83	81	79	77	73	68	63	82
	80	81	81	79	78	75	73	69	63	81
	60	79	80	77	77	74	73	69	64	80
	50	79	79	77	77	74	73	69	64	80
	40	81	80	77	77	74	73	69	64	80
1100	100	83	86	88	83	80	77	71	66	86
	80	81	86	86	81	78	75	71	66	84
	60	80	84	84	79	77	74	71	66	82
	50	84	84	83	78	77	74	71	66	82
	40	88	85	83	78	77	74	71	66	82
1500	100	90	89	95	90	85	82	75	69	92
	80	87	86	93	87	82	78	72	67	89
	60	89	87	89	84	80	77	71	66	87
	50	93	92	91	85	80	77	71	67	88
	40	94	96	92	86	81	77	71	67	89
2000	100	96	93	100	96	91	89	83	76	98
	80	93	90	99	93	88	85	78	73	95
	60	94	91	95	90	86	82	76	72	92
	50	98	97	97	92	86	82	76	72	94
	40	99	100	99	93	87	83	76	72	95
2600	100	105	99	101	106	99	96	91	85	106
	80	103	96	99	104	97	93	86	80	103
	60	104	98	98	101	94	90	84	80	101
	50	107	105	105	101	94	92	85	80	102
	40	108	106	105	101	94	92	85	80	102
3488	100	110	108	106	111	109	104	100	94	113
	80	108	106	104	109	106	101	95	89	110
	60	109	107	104	106	104	98	93	88	108
	50	112	113	111	106	104	99	94	88	109
	40	113	114	112	106	104	99	94	88	109

		Outlet Sound Power, L_{Wo}								
RPM	%WOV	1	2	3	4	5	6	7	8	L_{Wo}A
800	100	84	85	81	76	77	68	59	51	80
	80	82	82	79	73	70	67	58	49	77
	60	81	79	75	71	68	67	58	49	74
	50	85	81	76	70	68	67	58	49	74
	40	88	83	76	69	68	67	58	50	75
1100	100	88	93	88	83	82	76	67	59	86
	80	85	93	87	79	78	72	65	57	84
	60	86	86	82	76	74	70	64	56	80
	50	95	89	82	75	73	70	64	57	80
	40	98	92	84	76	74	70	64	57	82
1500	100	95	94	97	89	87	83	75	67	93
	80	92	89	95	86	84	78	70	64	90
	60	96	89	93	84	80	74	68	64	87
	50	100	96	93	84	80	74	67	65	89
	40	104	101	94	85	81	75	68	65	90
2000	100	102	98	99	96	95	90	84	76	99
	80	99	94	97	92	91	86	78	72	96
	60	102	96	95	90	88	82	75	73	93
	50	107	102	99	91	89	82	76	73	95
	40	109	105	100	92	90	83	77	73	97
2600	100	113	104	102	109	104	98	94	86	109
	80	105	98	98	105	100	94	88	82	105
	60	108	101	99	100	97	91	84	81	102
	50	112	107	105	101	97	91	84	81	103
	40	117	112	110	104	99	93	87	85	107
3488	100	118	114	109	114	112	107	102	96	116
	80	110	108	104	110	109	103	97	91	112
	60	113	111	106	106	105	100	93	88	109
	50	117	116	112	106	105	100	93	89	110
	40	122	121	117	109	108	102	96	92	114

The sound power level ratings shown are in decibels, referred to 10^{-12} watts calculated per AMCA Standard 301. Values shown are for inlet L_{Wi}, L_{Wi}A and outlet L_{Wo}, L_{Wo}A sound power levels for Installation Type B: free inlet, ducted outlet. Outlet ratings include the effects of duct end correction. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.

22 AFDW

Wheel Diameter = 22¼ in.
Outlet Area = 5.12 ft.^{2}
Tip Speed = 5.83 x RPM
Maximum BHP = (RPM/778)^3

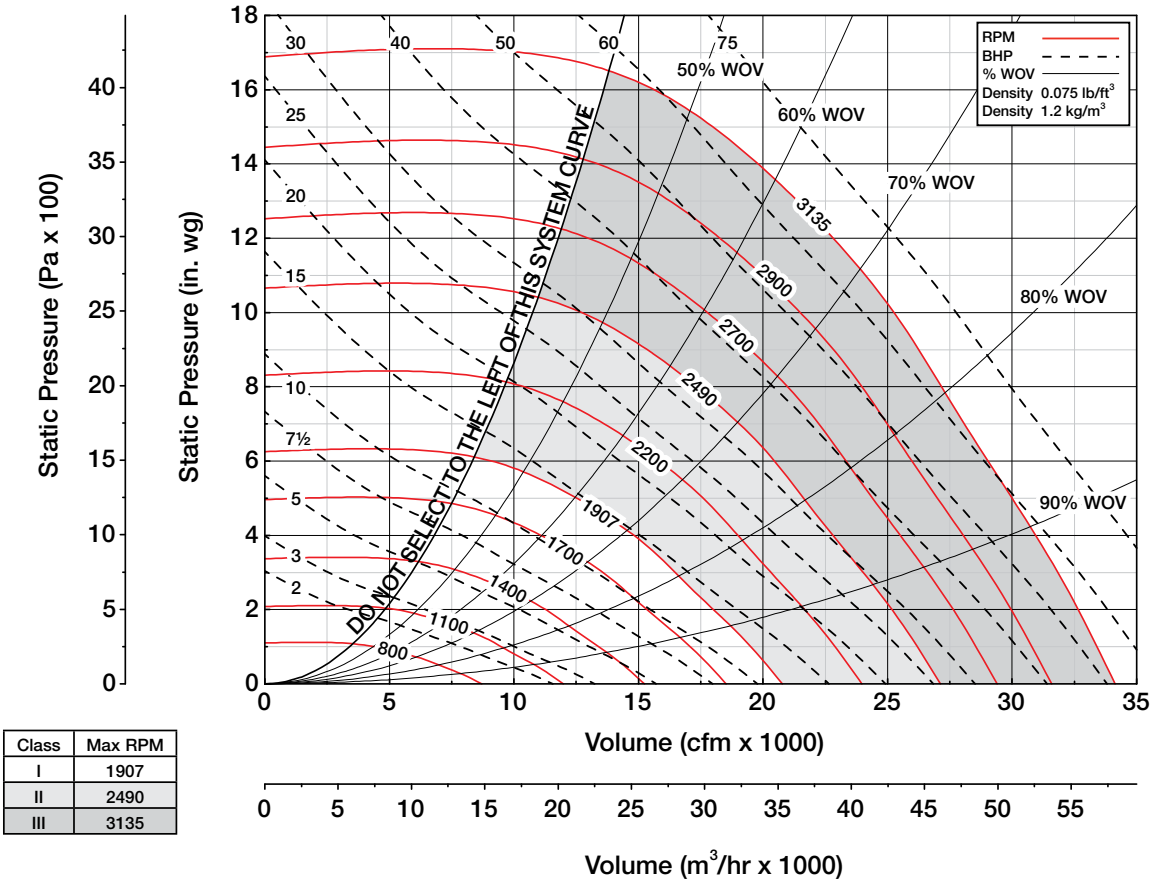
Minimum Starting HP = 1
Maximum RPM Class I = 1907
Maximum RPM Class II = 2490
Maximum RPM Class III = 3135

CFM	OV	STATIC PRESSURE (in. wg)																			
		0.25		0.50		0.75		1.00		1.25		1.50		1.75		2.00		2.25		2.50	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
3000	585	437	0.18	563	0.35	674	0.56														
4000	781	497	0.26	606	0.47	702	0.70	787	0.95	873	1.23										
5000	976	569	0.37	661	0.61	747	0.87	826	1.16	900	1.46	967	1.77	1036	2.11	1103	2.47				
6000	1171	645	0.53	726	0.79	802	1.09	875	1.41	941	1.74	1006	2.09	1068	2.44	1125	2.81	1180	3.19	1239	3.61
7000	1367	724	0.73	800	1.04	865	1.35	930	1.70	993	2.07	1053	2.45	1109	2.84	1165	3.24	1219	3.66	1270	4.08
8000	1562	806	0.98	875	1.33	937	1.68	993	2.05	1051	2.45	1105	2.86	1160	3.29	1212	3.73	1261	4.17	1310	4.63
9000	1757	890	1.29	953	1.68	1011	2.08	1064	2.48	1114	2.89	1166	3.34	1215	3.79	1264	4.26	1312	4.75	1358	5.24
10000	1953	975	1.67	1032	2.10	1088	2.54	1138	2.98	1185	3.43	1230	3.88	1277	4.37	1322	4.87	1365	5.39	1409	5.92
11000	2148	1061	2.13	1114	2.60	1165	3.07	1214	3.56	1259	4.05	1302	4.53	1342	5.03	1385	5.56	1427	6.11	1467	6.67
12000	2343	1149	2.68	1197	3.17	1244	3.69	1291	4.22	1335	4.75	1376	5.28	1415	5.81	1452	6.35	1490	6.92	1529	7.51
13000	2539	1237	3.32	1282	3.84	1326	4.40	1369	4.96	1411	5.54	1451	6.12	1489	6.69	1525	7.26	1560	7.85	1593	8.44
14000	2734	1326	4.07	1367	4.61	1408	5.21	1448	5.81	1489	6.42	1527	7.04	1564	7.67	1599	8.28	1633	8.90	1666	9.52
15000	2929	1416	4.92	1452	5.48	1492	6.12	1530	6.76	1567	7.41	1605	8.07	1640	8.74	1675	9.41	1708	10.1	1739	10.7
16000	3125	1505	5.89	1539	6.49	1576	7.14	1613	7.83	1648	8.52	1683	9.21	1717	9.92	1751	10.6	1783	11.4	1814	12.1
17000	3320	1595	6.98	1627	7.61	1661	8.29	1696	9.01	1730	9.74	1762	10.5	1796	11.2	1828	12.0	1859	12.7	1890	13.5
18000	3515	1685	8.20	1716	8.87	1747	9.57	1780	10.3	1812	11.1	1843	11.9	1875	12.7	1906	13.4	1936	14.2	1966	15.0

CFM	OV	STATIC PRESSURE (in. wg)																			
		2.50		3.00		3.50		4.00		4.50		5.00		5.50		6.00		6.50		7.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
7000	1367	1270	4.08	1365	4.95	1465	5.93	1559	6.95												
8000	1562	1310	4.63	1404	5.58	1491	6.55	1574	7.56	1662	8.69	1745	9.85	1824	11.0						
9000	1757	1358	5.24	1444	6.26	1531	7.30	1612	8.38	1688	9.49	1761	10.6	1839	11.9	1915	13.2	1988	14.5	2058	15.8
10000	1953	1409	5.92	1494	7.00	1573	8.12	1652	9.27	1728	10.4	1800	11.7	1868	12.9	1934	14.1	2003	15.5	2073	16.9
11000	2148	1467	6.67	1546	7.81	1624	9.00	1698	10.2	1768	11.5	1839	12.8	1908	14.0	1973	15.4	2036	16.7	2097	18.1
12000	2343	1529	7.51	1604	8.72	1677	9.97	1749	11.3	1818	12.6	1883	13.9	1948	15.3	2013	16.7	2076	18.1	2136	19.5
13000	2539	1593	8.44	1666	9.72	1735	11.0	1801	12.4	1869	13.8	1934	15.2	1996	16.6	2055	18.1	2116	19.6	2176	21.1
14000	2734	1666	9.52	1730	10.8	1797	12.2	1861	13.6	1922	15.1	1986	16.5	2047	18.0	2106	19.6	2163	21.1	2218	22.7
15000	2929	1739	10.7	1800	12.1	1861	13.5	1923	14.9	1983	16.5	2041	18.0	2099	19.6	2158	21.2	2214	22.8	2269	24.5
16000	3125	1814	12.1	1873	13.5	1930	14.9	1987	16.4	2046	18.0	2102	19.6	2157	21.2	2210	22.9	2266	24.6	2320	26.3
17000	3320	1890	13.5	1948	15.0	2003	16.5	2055	18.0	2109	19.6	2165	21.3	2218	23.0	2270	24.7	2320	26.5	2373	28.2
18000	3515	1966	15.0	2023	16.6	2077	18.2	2128	19.8	2178	21.4	2228	23.1	2281	24.9	2332	26.7	2382	28.5	2430	30.3
19000	3710	2043	16.7	2099	18.4	2152	20.1	2202	21.8	2251	23.5	2297	25.2	2345	26.9	2395	28.8	2444	30.7	2492	32.6
20000	3906	2121	18.5	2175	20.3	2227	22.1	2277	23.9	2324	25.6	2370	27.4	2415	29.2	2459	31.0	2507	33.0	2554	35.0
21000	4101	2200	20.5	2253	22.4	2303	24.2	2352	26.1	2399	28.0	2444	29.8	2488	31.7	2530	33.6	2572	35.5	2618	37.5
22000	4296	2279	22.7	2331	24.6	2380	26.5	2428	28.5	2474	30.5	2518	32.4	2561	34.3	2603	36.3	2644	38.3	2684	40.2

CFM	OV	STATIC PRESSURE (in. wg)																			
		7.00		7.50		8.00		8.50		9.00		10.00		11.00		12.00		13.00		14.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
11000	2148	2097	18.1	2155	19.5	2221	21.0	2284	22.6	2345	24.1	2460	27.3								
12000	2343	2136	19.5	2194	21.0	2251	22.5	2306	24.0	2360	25.5	2475	28.8	2586	32.3	2692	35.8				
13000	2539	2176	21.1	2234	22.6	2290	24.2	2345	25.7	2398	27.3	2496	30.5	2601	33.9	2707	37.6	2809	41.3	2906	45.1
14000	2734	2218	22.7	2274	24.3	2330	26.0	2385	27.6	2438	29.3	2535	32.6	2631	36.0	2723	39.5	2823	43.3	2921	47.2
15000	2929	2269	24.5	2321	26.1	2373	27.8	2425	29.5	2478	31.3	2574	34.7	2670	38.3	2762	41.9	2849	45.6	2936	49.4
16000	3125	2320	26.3	2373	28.0	2423	29.8	2473	31.6	2521	33.4	2614	36.9	2709	40.7	2800	44.4	2888	48.2	2972	52.1
17000	3320	2373	28.2	2424	30.1	2475	31.9	2524	33.8	2572	35.6	2658	39.3	2749	43.2	2840	47.1	2927	51.0	3011	55.1
18000	3515	2430	30.3	2477	32.2	2527	34.1	2576	36.0	2624	38.0	2709	41.8	2795	45.8	2879	49.8	2966	53.9	3050	58.1
19000	3710	2492	32.6	2538	34.5	2583	36.5	2628	38.5	2676	40.5	2760	44.4	2846	48.5	2928	52.7	3007	56.9	3090	61.2
20000	3906	2554	35.0	2600	37.0	2644	39.0	2688	41.0	2730	43.1	2811	47.1	2896	51.4	2978	55.7	3057	60.1		
21000	4101	2618	37.5	2663	39.6	2707	41.7	2750	43.8	2791	45.9	2864	50.0	2948	54.4	3029	58.8	3108	63.3		
22000	4296	2684	40.2	2726	42.3	2770	44.5	2812	46.7	2854	48.9	2925	53.1	3001	57.5	3081	62.1				
23000	4492	2756	43.3	2794	45.4	2834	47.5	2875	49.8	2917	52.0	2986	56.3	3061	60.9						
24000	4687	2829	46.5	2867	48.6	2904	50.8	2940	53.0	2980	55.3	3048	59.7	3122	64.5						
25000	4882	2903	49.9	2940	52.1	2976	54.4	3012	56.6	3047	58.9	3111	63.3								
26000	5078	2977	53.5	3014	55.8	3050	58.1	3085	60.4	3119	62.8										

Performance certified is for model AFDW Arrangement 3, Installation Type B: free inlet, ducted outlet.
Performance ratings do not include the effects of appurtenances (accessories).
Power rating (BHP) does not include transmission losses.



Class	Max RPM
I	1907
II	2490
III	3135

% WOV = (CFM X 100) / (RPM X 10.9)

Sound Power [dB Ref 10^{-12} watts]

		Inlet Sound Power, L_{Wi}								
RPM	%WOV	1	2	3	4	5	6	7	8	L_{Wi}A
700	100	81	84	81	79	77	73	67	62	82
	80	81	82	79	78	75	72	68	63	80
	60	79	81	78	77	74	72	68	63	80
	50	79	80	77	76	74	72	68	63	80
	40	81	80	77	77	75	73	68	63	80
1000	100	84	88	88	84	81	77	71	66	86
	80	83	87	86	82	79	75	71	66	85
	60	82	85	84	80	77	74	71	66	83
	50	85	85	83	79	77	74	71	66	83
	40	89	86	84	79	77	74	71	66	83
1300	100	91	90	95	89	85	82	74	68	92
	80	88	87	94	86	82	78	72	67	89
	60	90	87	90	84	80	76	71	66	86
	50	93	91	91	84	80	76	71	67	87
	40	95	96	92	85	80	77	71	67	88
1700	100	95	94	101	95	91	88	81	75	97
	80	92	90	99	92	88	84	77	72	95
	60	93	91	96	89	85	81	75	71	92
	50	98	98	98	91	86	81	75	71	94
	40	99	100	99	92	86	82	75	71	95
2300	100	105	100	104	105	99	96	91	84	106
	80	103	97	102	104	96	92	86	80	103
	60	104	98	99	101	94	90	84	79	101
	50	107	106	99	101	94	92	84	80	101
	40	109	107	99	101	94	92	84	80	101
3135	100	111	108	108	112	108	104	100	94	113
	80	110	106	105	110	106	101	95	89	111
	60	110	107	105	108	104	99	93	88	109
	50	113	113	112	108	103	100	94	88	110
	40	115	114	112	108	103	100	94	88	110

		Outlet Sound Power, L_{Wo}								
RPM	%WOV	1	2	3	4	5	6	7	8	L_{Wo}A
700	100	84	86	80	77	75	67	57	50	80
	80	83	83	78	73	70	65	56	48	76
	60	81	80	75	70	68	65	56	48	74
	50	84	82	75	70	68	65	56	48	74
	40	88	84	75	70	68	66	57	48	75
1000	100	90	94	88	84	82	76	67	59	87
	80	87	94	87	80	78	72	65	57	85
	60	87	88	82	77	74	70	64	56	80
	50	95	90	83	76	74	70	64	57	81
	40	98	93	84	77	74	70	64	57	82
1300	100	96	94	99	89	87	82	73	66	94
	80	92	90	96	86	84	77	69	63	91
	60	96	89	94	82	80	73	67	64	88
	50	100	95	95	83	80	73	67	64	89
	40	104	101	95	83	81	74	67	65	90
1700	100	101	98	100	95	94	89	82	74	98
	80	98	94	98	91	90	84	77	71	95
	60	102	95	96	89	87	80	74	71	92
	50	106	101	99	90	87	80	74	72	94
	40	108	105	100	91	89	81	75	72	96
2300	100	112	104	107	109	103	98	93	86	109
	80	104	98	103	105	100	94	87	81	105
	60	108	101	99	101	97	90	84	81	101
	50	112	107	99	101	96	90	84	81	102
	40	117	112	102	104	99	92	87	86	105
3135	100	119	114	110	116	113	107	102	96	117
	80	111	107	105	111	109	103	97	91	113
	60	114	110	107	107	106	100	93	89	109
	50	118	116	113	107	105	100	93	89	111
	40	124	121	118	111	108	102	96	93	114

The sound power level ratings shown are in decibels, referred to 10^{-12} watts calculated per AMCA Standard 301. Values shown are for inlet L_{Wi}, L_{Wi}A and outlet L_{Wo}, L_{Wo}A sound power levels for Installation Type B: free inlet, ducted outlet. Outlet ratings include the effects of duct end correction. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.

24 AFDW

Wheel Diameter = 24½ in.
Outlet Area = 6.21 ft.^{2}
Tip Speed = 6.41 x RPM
Maximum BHP = (RPM/655)^3

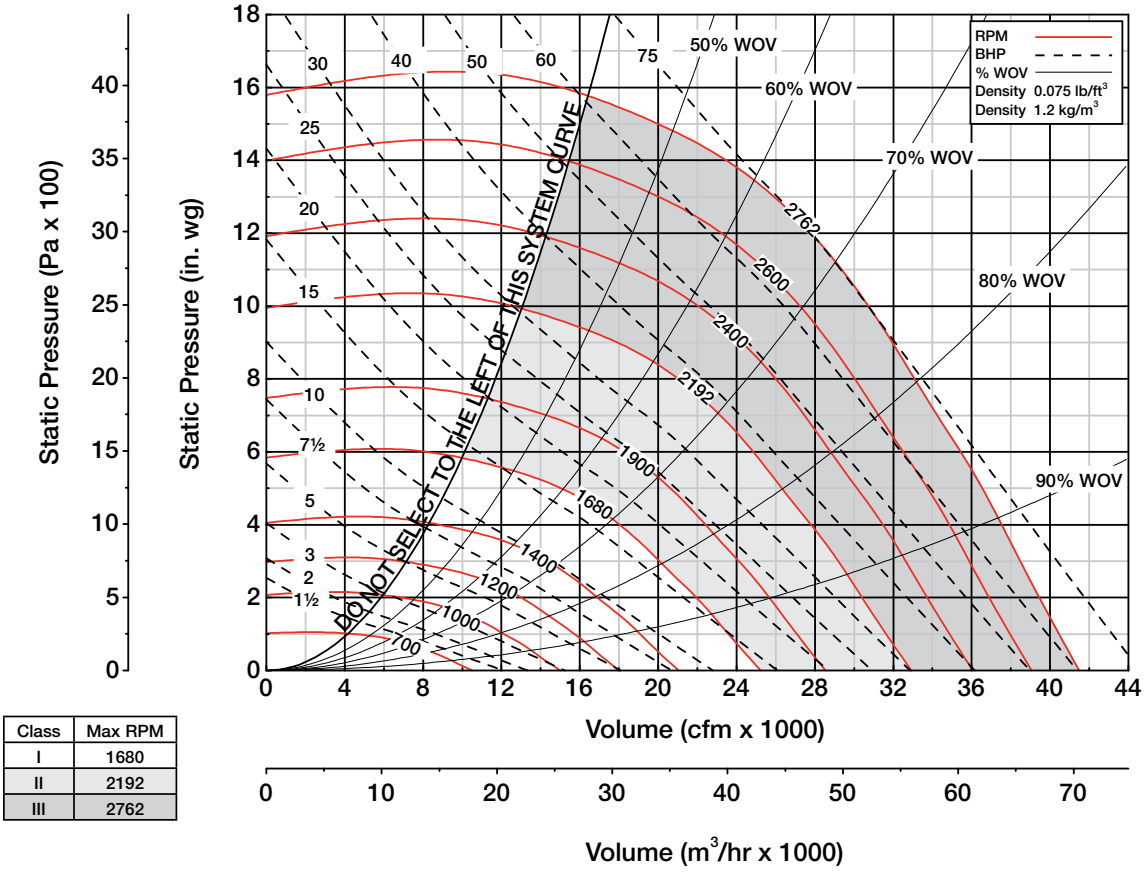
Minimum Starting HP = 1
Maximum RPM Class I = 1680
Maximum RPM Class II = 2192
Maximum RPM Class III = 2762

CFM	OV	STATIC PRESSURE (in. wg)																			
		0.25		0.50		0.75		1.00		1.25		1.50		1.75		2.00		2.25		2.50	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
4000	644	398	0.22	512	0.44	610	0.69														
5000	805	444	0.31	540	0.55	630	0.83	710	1.13	785	1.44										
6000	966	496	0.42	578	0.69	657	0.99	732	1.32	802	1.67	868	2.03	931	2.41	989	2.81				
7000	1127	551	0.57	624	0.87	692	1.18	761	1.55	826	1.93	889	2.33	947	2.73	1003	3.16	1058	3.60	1110	4.05
8000	1288	607	0.75	676	1.08	738	1.43	797	1.80	857	2.21	913	2.65	970	3.09	1025	3.55	1076	4.01	1124	4.49
9000	1449	667	0.97	729	1.34	785	1.72	841	2.12	893	2.53	947	3.00	998	3.48	1048	3.97	1099	4.47	1147	4.98
10000	1610	728	1.24	785	1.65	838	2.06	888	2.49	937	2.93	983	3.39	1033	3.90	1080	4.42	1125	4.96	1170	5.51
11000	1771	790	1.56	841	2.00	892	2.45	939	2.91	984	3.39	1029	3.88	1071	4.37	1116	4.92	1160	5.49	1201	6.08
12000	1932	853	1.94	900	2.42	947	2.90	992	3.40	1034	3.90	1076	4.42	1117	4.96	1156	5.50	1195	6.07	1237	6.69
13000	2093	916	2.38	960	2.89	1003	3.42	1047	3.95	1087	4.49	1125	5.04	1164	5.60	1202	6.18	1238	6.76	1273	7.35
14000	2254	979	2.88	1021	3.44	1060	4.00	1102	4.56	1141	5.14	1178	5.72	1213	6.31	1249	6.92	1285	7.54	1319	8.17
15000	2415	1043	3.45	1083	4.05	1120	4.65	1158	5.25	1196	5.86	1232	6.48	1266	7.11	1299	7.74	1332	8.39	1365	9.05
16000	2576	1107	4.10	1145	4.74	1181	5.37	1215	6.02	1251	6.66	1286	7.32	1320	7.98	1352	8.65	1382	9.33	1413	10.0
17000	2737	1171	4.83	1208	5.51	1242	6.19	1274	6.87	1308	7.55	1341	8.24	1374	8.94	1405	9.64	1435	10.4	1464	11.1
18000	2898	1235	5.64	1271	6.37	1304	7.08	1335	7.80	1365	8.53	1397	9.25	1429	10.0	1459	10.7	1489	11.5	1517	12.2
19000	3059	1300	6.55	1334	7.31	1366	8.08	1396	8.83	1424	9.59	1454	10.4	1485	11.1	1514	11.9	1543	12.7	1571	13.5

CFM	OV	STATIC PRESSURE (in. wg)																			
		2.50		3.00		3.50		4.00		4.50		5.00		5.50		6.00		6.50		7.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
8000	1288	1124	4.49	1221	5.50	1309	6.54														
9000	1449	1147	4.98	1237	6.04	1323	7.15	1406	8.30	1484	9.48										
10000	1610	1170	5.51	1260	6.64	1342	7.80	1420	9.00	1498	10.3	1571	11.5	1641	12.9						
11000	1771	1201	6.08	1283	7.28	1365	8.51	1442	9.78	1514	11.1	1585	12.4	1655	13.8	1722	15.2	1786	16.7	1848	18.1
12000	1932	1237	6.69	1314	7.95	1389	9.26	1465	10.6	1537	12.0	1605	13.4	1670	14.8	1736	16.3	1800	17.8	1862	19.3
13000	2093	1273	7.35	1350	8.68	1421	10.1	1489	11.5	1560	12.9	1628	14.4	1693	15.9	1755	17.4	1815	19.0	1876	20.6
14000	2254	1319	8.17	1385	9.46	1456	10.9	1523	12.4	1586	13.9	1652	15.4	1716	17.0	1778	18.6	1838	20.2	1895	21.9
15000	2415	1365	9.05	1429	10.4	1492	11.8	1558	13.4	1621	14.9	1680	16.5	1740	18.2	1802	19.9	1861	21.6	1918	23.3
16000	2576	1413	10.0	1476	11.4	1535	12.9	1594	14.4	1656	16.0	1715	17.7	1771	19.4	1826	21.2	1884	22.9	1941	24.7
17000	2737	1464	11.1	1523	12.5	1581	14.1	1636	15.6	1692	17.2	1750	18.9	1806	20.7	1860	22.5	1912	22.4	1965	26.2
18000	2898	1517	12.2	1571	13.8	1628	15.3	1682	16.9	1734	18.6	1786	20.3	1842	22.1	1895	24.0	1947	25.9	1997	27.8
19000	3059	1571	13.5	1624	15.1	1675	16.7	1729	18.4	1780	20.1	1829	21.8	1878	23.5	1931	25.5	1982	27.5	2032	29.5
20000	3220	1625	14.8	1677	16.5	1726	18.2	1776	19.9	1826	21.7	1875	23.4	1922	25.2	1967	27.1	2018	29.1	2067	31.2
21000	3381	1680	16.3	1731	18.0	1779	19.7	1826	21.5	1873	23.4	1921	25.2	1967	27.1	2012	29.0	2055	30.9	2103	33.0
22000	3542	1735	17.8	1785	19.6	1833	21.4	1878	23.3	1922	25.2	1968	27.1	2014	29.0	2058	31.0	2101	33.0	2142	35.0
23000	3703	1791	19.5	1840	21.4	1887	23.3	1931	25.2	1975	27.1	2016	29.1	2061	31.1	2105	33.1	2147	35.2	2188	37.3

CFM	OV	STATIC PRESSURE (in. wg)																			
		7.00		7.50		8.00		8.50		9.00		10.00		11.00		12.00		13.00		14.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
13000	2093	1876	20.5	1935	22.2	1993	23.8	2048	25.5	2102	27.2										
14200	2286	1900	22.1	1955	23.8	2010	25.5	2065	27.3	2119	29.1	2223	32.7	2322	36.5						
15400	2479	1927	23.8	1983	25.6	2036	27.4	2088	29.2	2138	31.0	2240	34.8	2339	38.7	2433	42.7	2524	46.8		
16600	2673	1955	25.6	2010	27.5	2064	29.4	2115	31.3	2166	33.2	2262	37.1	2356	41.1	2450	45.2	2541	49.5	2628	53.7
17800	2866	1990	27.5	2039	29.4	2092	31.4	2143	33.4	2193	35.4	2290	39.5	2382	43.6	2469	47.8	2558	52.2	2645	56.7
19000	3059	2032	29.5	2080	31.5	2126	33.5	2171	35.6	2221	37.7	2318	42.0	2409	46.3	2497	50.7	2581	55.1	2662	59.7
20200	3252	2074	31.5	2122	33.6	2168	35.8	2213	37.9	2257	40.1	2346	44.5	2437	49.0	2525	53.6	2609	58.2	2690	63.0
21400	3446	2117	33.7	2164	35.9	2210	38.1	2255	40.4	2299	42.6	2383	47.2	2465	51.9	2552	56.6	2636	61.5	2717	66.3
22600	3639	2170	36.3	2210	38.4	2253	40.6	2298	42.9	2341	45.3	2424	50.0	2504	54.9	2581	59.8	2664	64.8	2745	69.8
23800	3832	2225	39.2	2264	41.3	2303	43.5	2341	45.7	2384	48.1	2467	53.0	2546	58.0	2622	63.1	2696	68.2		
25000	4025	2281	42.2	2320	44.4	2358	46.6	2395	48.9	2432	51.2	2510	56.1	2589	61.2	2664	66.5	2738	71.8		
26200	4219	2337	45.3	2376	47.6	2413	50.0	2450	52.3	2486	54.7	2556	59.4	2631	64.6	2707	70.0				
27400	4412	2396	48.7	2432	51.1	2470	53.5	2506	55.9	2542	58.4	2611	63.3	2677	68.3	2750	73.8				
28600	4605	2458	52.4	2492	54.8	2527	57.3	2563	59.8	2598	62.3	2666	67.4	2732	72.5						
29800	4798	2522	56.2	2555	58.7	2588	61.3	2620	63.8	2654	66.4	2722	71.7								
31000	4991	2586	60.3	2619	62.9	2651	65.5	2682	68.1	2713	70.8										

Performance certified is for model AFDW Arrangement 3, Installation Type B: free inlet, ducted outlet.
Performance ratings do not include the effects of appurtenances (accessories).
Power rating (BHP) does not include transmission losses.



Class	Max RPM
I	1680
II	2192
III	2762

% WOV = (CFM X 100) / (RPM X 15.0)

Sound Power [dB Ref 10^{-12} watts]

RPM	%WOV	Inlet Sound Power, L_{Wi} 1	2	3	4	5	6	7	8	L_{Wi}A
500	100	89	82	77	75	69	61	55	51	76
	80	87	80	75	74	68	60	54	50	75
	60	86	79	74	73	68	60	54	50	74
	50	86	79	74	73	68	60	54	50	74
	40	86	79	74	73	68	60	54	50	74
700	100	90	91	84	79	75	68	60	57	82
	80	86	86	81	76	72	65	58	55	79
	60	84	84	79	75	71	64	58	55	77
	50	84	84	79	75	71	64	58	56	77
	40	87	86	80	74	71	65	58	55	78
1000	100	89	91	90	86	84	79	72	66	89
	80	86	89	88	85	81	75	69	64	86
	60	86	89	86	83	79	74	69	65	85
	50	89	91	87	82	78	74	69	66	85
	40	93	91	87	82	79	74	70	66	85
1400	100	96	96	102	93	91	91	82	75	98
	80	93	93	97	90	87	86	77	73	94
	60	91	92	94	88	85	81	76	73	91
	50	95	93	92	87	85	81	77	74	90
	40	99	97	94	88	85	81	77	74	91
2000	100	106	101	107	103	99	101	96	88	107
	80	104	98	105	100	95	96	91	85	103
	60	102	96	102	97	93	91	87	83	100
	50	102	96	102	96	92	90	87	84	99
	40	109	106	105	98	92	90	87	84	101
2563	100	110	111	109	112	105	106	104	97	113
	80	108	108	106	109	102	100	99	92	109
	60	106	106	104	107	99	97	94	90	106
	50	107	107	104	106	98	96	93	90	106
	40	113	115	110	107	99	96	93	91	108

RPM	%WOV	Outlet Sound Power, L_{Wo} 1	2	3	4	5	6	7	8	L_{Wo}A
500	100	82	81	76	70	66	57	47	44	73
	80	81	79	73	68	63	54	44	42	71
	60	79	77	72	67	63	54	46	43	70
	50	80	77	72	67	63	54	46	44	70
	40	80	77	72	67	64	54	47	44	70
700	100	95	94	82	77	74	67	58	53	83
	80	92	90	79	74	71	63	54	50	79
	60	92	90	78	72	70	62	54	51	78
	50	91	89	77	71	70	61	55	51	78
	40	90	89	77	71	70	61	55	52	78
1000	100	92	99	88	83	83	77	69	63	89
	80	88	96	85	80	78	72	65	60	85
	60	87	94	83	78	76	69	64	61	83
	50	94	96	84	77	76	69	65	62	84
	40	97	94	85	77	76	69	65	62	84
1400	100	100	100	95	92	91	90	81	74	96
	80	99	95	93	88	86	84	76	70	92
	60	94	93	92	86	83	78	73	70	89
	50	98	95	91	85	82	77	73	71	89
	40	106	103	93	86	84	78	74	72	92
2000	100	112	108	104	102	100	100	95	87	106
	80	105	101	100	98	96	94	89	82	101
	60	104	101	99	95	92	89	84	81	98
	50	102	100	98	94	91	87	84	81	97
	40	111	111	104	97	93	88	85	82	101
2563	100	116	115	110	108	106	105	103	95	112
	80	109	108	105	105	102	100	97	90	108
	60	108	108	105	102	99	96	91	87	104
	50	106	107	104	102	97	94	91	88	104
	40	116	117	112	105	100	96	91	88	108

The sound power level ratings shown are in decibels, referred to 10^{-12} watts calculated per AMCA Standard 301. Values shown are for inlet L_{Wi}, L_{Wi}A and outlet L_{Wo}, L_{Wo}A sound power levels for Installation Type B: free inlet, ducted outlet. Outlet ratings include the effects of duct end correction. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.

27 AFDW

Wheel Diameter = 27 in.
Outlet Area = 7.54 ft.^{2}
Tip Speed = 7.07 x RPM
Maximum BHP = (RPM/557)^3

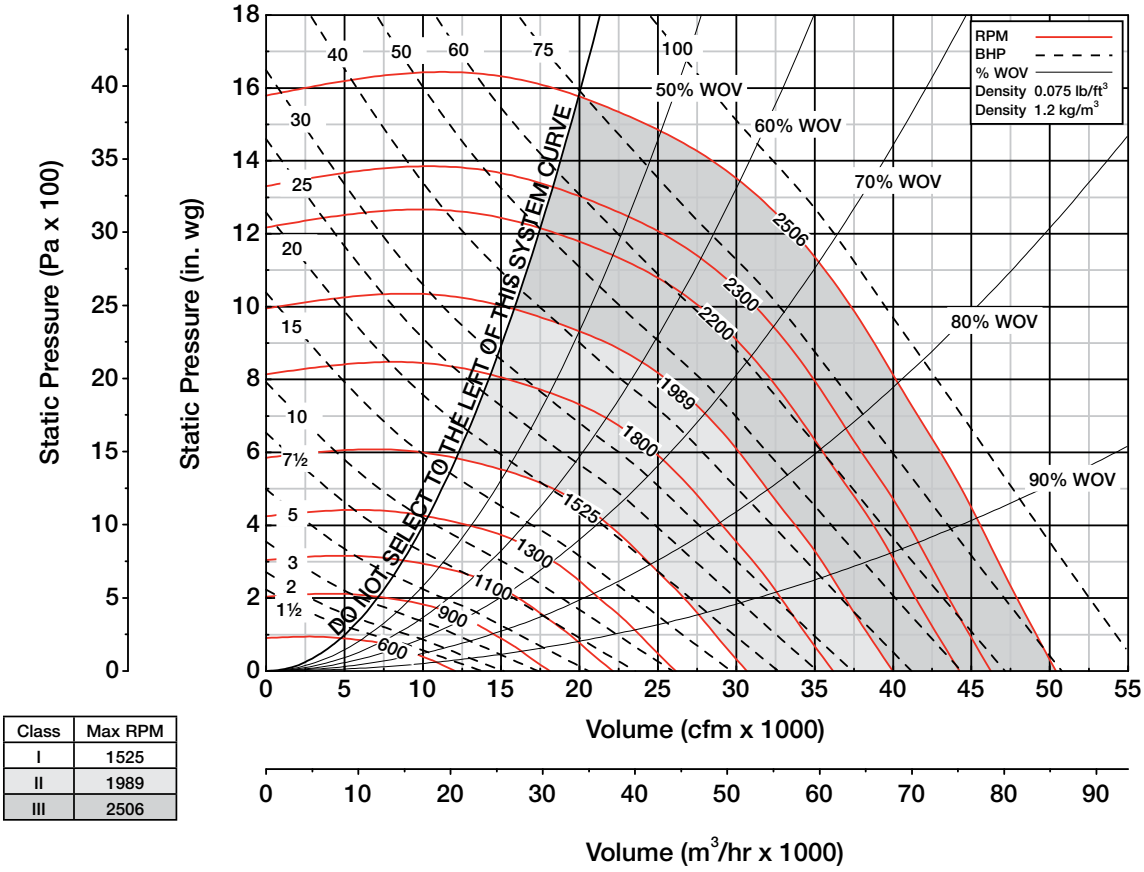
Minimum Starting HP = 1½
Maximum RPM Class I = 1525
Maximum RPM Class II = 1989
Maximum RPM Class III = 2506

CFM	OV	STATIC PRESSURE (in. wg)																			
		0.25		0.50		0.75		1.00		1.25		1.50		1.75		2.00		2.25		2.50	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
5000	663	365	0.28	467	0.55	555	0.85														
6100	809	403	0.38	491	0.67	572	1.01	644	1.37	713	1.76										
7200	954	446	0.50	521	0.82	594	1.19	663	1.59	727	2.01	786	2.45	843	2.91	896	3.38				
8300	1100	491	0.66	559	1.01	623	1.40	685	1.83	746	2.29	803	2.76	856	3.25	908	3.76	958	4.29	1005	4.83
9400	1246	537	0.85	600	1.24	658	1.65	714	2.10	770	2.60	822	3.11	875	3.64	924	4.18	971	4.73	1017	5.31
10500	1392	586	1.08	644	1.51	697	1.96	748	2.42	798	2.93	848	3.48	894	4.05	943	4.63	989	5.23	1033	5.84
11600	1538	636	1.36	689	1.82	739	2.31	786	2.81	832	3.33	877	3.89	923	4.50	966	5.12	1009	5.75	1052	6.40
12700	1684	686	1.68	735	2.19	783	2.71	826	3.25	870	3.80	911	4.37	952	4.98	995	5.64	1035	6.31	1073	7.00
13800	1830	738	2.06	782	2.61	828	3.17	869	3.74	908	4.33	949	4.94	987	5.56	1024	6.21	1064	6.92	1102	7.64
14900	1976	789	2.49	831	3.08	873	3.68	913	4.30	951	4.92	987	5.56	1025	6.22	1060	6.89	1093	7.57	1131	8.33
16000	2122	841	2.99	881	3.62	919	4.27	958	4.92	995	5.58	1029	6.25	1063	6.95	1098	7.65	1131	8.37	1163	9.10
17100	2267	893	3.55	931	4.23	966	4.91	1004	5.60	1039	6.30	1073	7.02	1105	7.74	1137	8.48	1169	9.24	1200	10.0
18200	2413	945	4.18	982	4.91	1016	5.63	1050	6.36	1084	7.10	1117	7.85	1148	8.62	1178	9.39	1208	10.2	1238	11.0
19300	2559	998	4.88	1033	5.66	1065	6.43	1097	7.20	1130	7.98	1162	8.77	1192	9.57	1221	10.4	1249	11.2	1277	12.0
20400	2705	1050	5.67	1085	6.50	1116	7.30	1145	8.12	1176	8.94	1207	9.77	1237	10.6	1265	11.5	1292	12.3	1319	13.2
21500	2851	1103	6.55	1136	7.41	1166	8.27	1195	9.12	1223	10.0	1253	10.9	1282	11.7	1309	12.6	1336	13.5	1362	14.4

CFM	OV	STATIC PRESSURE (in. wg)																			
		2.50		3.00		3.50		4.00		4.50		5.00		5.50		6.00		6.50		7.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
10000	1326	1025	5.59	1111	6.82	1191	8.11														
11200	1485	1045	6.19	1127	7.49	1204	8.85	1279	10.3	1349	11.7										
12400	1644	1066	6.83	1147	8.22	1222	9.65	1292	11.1	1362	12.7	1428	14.2	1492	15.9	1552	17.5				
13600	1803	1096	7.52	1168	8.99	1243	10.5	1313	12.1	1378	13.7	1441	15.3	1504	17.0	1565	18.7	1623	20.5	1679	22.3
14800	1962	1128	8.26	1199	9.82	1264	11.4	1333	13.1	1399	14.7	1461	16.5	1520	18.2	1578	20.0	1636	21.9	1692	23.7
16000	2122	1163	9.10	1230	10.7	1295	12.4	1356	14.1	1420	15.9	1481	17.7	1540	19.5	1596	21.4	1650	23.3	1704	25.2
17200	2281	1204	10.1	1262	11.7	1327	13.4	1387	15.2	1444	17.1	1502	19.0	1561	20.9	1617	22.8	1671	24.8	1723	26.8
18400	2440	1245	11.2	1303	12.8	1359	14.5	1419	16.4	1475	18.3	1529	20.3	1582	22.3	1638	24.4	1692	26.4	1744	28.5
19600	2599	1288	12.3	1345	14.1	1398	15.8	1451	17.7	1507	19.7	1560	21.7	1612	23.8	1661	25.9	1713	28.1	1764	30.3
20800	2758	1335	13.6	1387	15.4	1440	17.3	1490	19.1	1539	21.1	1592	23.2	1643	25.4	1692	27.6	1739	29.8	1785	32.1
22000	2917	1382	15.0	1431	16.9	1482	18.8	1531	20.7	1578	22.7	1624	24.8	1675	27.0	1723	29.3	1770	31.6	1815	34.0
23200	3076	1430	16.5	1478	18.5	1524	20.4	1573	22.5	1619	24.5	1664	26.6	1707	28.8	1755	31.1	1802	33.5	1847	36.0
24400	3236	1479	18.1	1526	20.2	1571	22.2	1615	24.3	1661	26.5	1705	28.7	1747	30.9	1788	33.1	1834	35.5	1878	38.1
25600	3395	1528	19.9	1574	22.0	1618	24.1	1660	26.3	1703	28.5	1747	30.8	1789	33.1	1829	35.4	1868	37.7	1910	40.2
26800	3554	1578	21.8	1623	24.0	1666	26.2	1708	28.4	1747	30.7	1789	33.1	1830	35.4	1870	37.8	1909	40.2	1947	42.7
28000	3713	1628	23.8	1672	26.1	1714	28.4	1755	30.7	1794	33.1	1832	35.5	1872	37.9	1912	40.4	1950	42.9	1987	45.4

CFM	OV	STATIC PRESSURE (in. wg)																			
		7.00		7.50		8.00		8.50		9.00		10.00		11.00		12.00		13.00		14.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
17000	2254	1720	26.6	1770	28.6	1821	30.7	1871	32.8	1920	35.0	2015	39.3	2104	43.8						
18400	2440	1744	28.5	1794	30.6	1842	32.8	1889	35.0	1935	37.2	2029	41.8	2119	46.5	2205	51.3	2287	56.1		
19800	2625	1768	30.6	1818	32.8	1866	35.1	1913	37.3	1959	39.6	2047	44.3	2134	49.2	2219	54.2	2302	59.2	2381	64.4
21200	2811	1795	32.7	1842	35.1	1891	37.4	1937	39.8	1983	42.2	2070	47.1	2154	5.2	2234	57.2	2316	62.4	2395	67.8
22600	2997	1831	35.0	1875	37.4	1917	39.9	1962	42.4	2007	49.9	2095	50.0	2178	55.1	2257	60.4	2334	65.8	2410	71.3
24000	3183	1868	37.4	1911	39.9	1953	42.4	1994	45.0	2034	47.6	2119	52.9	2202	58.3	2281	63.8	2358	69.3	2431	75.0
25400	3368	1905	39.9	1948	42.5	1990	45.1	2031	47.8	2070	50.5	2147	56.0	2226	61.6	2306	67.3	2382	73.0	2455	78.9
26800	3554	1947	42.7	1986	45.2	2027	48.0	2068	50.7	2107	53.5	2183	59.2	2256	65.0	2330	70.9	2406	76.9	2479	82.9
28200	3740	1994	45.9	2031	48.4	2066	51.0	2105	53.8	2144	56.7	2220	62.6	2292	68.6	2361	74.6	2431	80.8	2504	87.1
29600	3925	2043	49.3	2078	51.9	2113	54.6	2147	57.3	2182	60.1	2257	66.1	2329	72.3	2398	78.5	2464	84.9		
31000	4111	2092	52.9	2127	55.6	2161	58.4	2195	61.2	2228	64.0	2294	69.8	2366	76.1	2434	82.6	2501	89.1		
32400	4297	2141	56.7	2176	59.5	2210	62.4	2243	65.3	2276	68.2	2339	74.0	2403	80.2	2472	86.8				
33800	4482	2194	60.7	2226	63.7	2259	66.6	2292	69.6	2325	72.6	2387	78.6	2447	84.8						
35200	4668	2249	65.0	2279	68.0	2309	71.1	2342	74.1	2374	77.2	2435	83.5	2495	89.8						
36600	4854	2304	69.6	2334	72.7	2364	75.8	2393	79.0	2423	82.1	2484	88.6								
38000	5039	2360	74.4	2390	77.6	2419	80.8	2447	84.0	2475	87.3										

Performance certified is for model AFDW Arrangement 3, Installation Type B: free inlet, ducted outlet.
Performance ratings do not include the effects of appurtenances (accessories).
Power rating (BHP) does not include transmission losses.



Class	Max RPM
I	1525
II	1989
III	2506

% WOV = (CFM X 100) / (RPM X 20.1)

Sound Power [dB Ref 10^{-12} watts]

Inlet Sound Power, L_{Wi}

RPM	%WOV	1	2	3	4	5	6	7	8	L_{Wi}A
450	100	91	80	78	75	68	60	55	51	76
	80	88	79	76	75	68	59	54	51	75
	60	88	78	74	74	67	59	54	50	74
	50	87	78	74	73	67	59	54	50	74
	40	87	78	74	73	67	59	54	50	74
600	100	91	87	83	77	74	65	58	56	80
	80	87	81	80	75	71	63	56	55	77
	60	85	79	79	74	70	62	56	55	76
	50	84	79	78	73	71	62	56	55	76
	40	88	81	79	72	71	62	56	54	76
900	100	90	92	90	86	85	79	71	66	89
	80	88	89	88	85	81	75	69	64	86
	60	88	90	86	83	79	73	69	65	85
	50	91	92	86	81	79	74	69	66	85
	40	95	90	87	82	79	74	70	66	85
1300	100	98	97	104	93	92	93	82	76	99
	80	95	94	99	90	88	87	78	73	95
	60	93	93	96	88	87	82	77	74	92
	50	97	94	94	87	86	82	78	75	91
	40	102	98	96	88	86	82	78	75	93
1800	100	107	100	109	102	100	102	96	88	107
	80	105	97	107	99	95	97	90	84	103
	60	104	95	105	96	93	91	86	83	100
	50	104	95	104	95	92	90	87	84	100
	40	111	105	106	98	92	90	87	85	101
2506	100	113	112	112	113	107	108	106	98	115
	80	111	109	109	111	103	103	100	94	111
	60	109	108	106	108	101	99	95	91	108
	50	109	108	107	107	100	98	95	92	108
	40	116	116	112	109	101	98	95	93	110

Outlet Sound Power, L_{Wo}

RPM	%WOV	1	2	3	4	5	6	7	8	L_{Wo}A
450	100	83	81	75	69	66	56	47	45	72
	80	83	79	73	67	64	52	44	43	70
	60	80	77	72	67	64	52	46	44	69
	50	81	77	72	67	64	52	46	44	70
	40	81	77	72	67	64	53	47	45	70
600	100	96	91	79	76	74	64	56	52	80
	80	92	87	77	72	71	60	52	49	77
	60	92	86	75	70	70	58	53	50	76
	50	91	86	74	70	70	58	53	51	75
	40	91	86	74	70	70	58	54	51	75
900	100	93	101	86	83	83	77	69	62	89
	80	89	98	84	80	79	71	64	60	85
	60	88	96	82	78	76	68	64	61	83
	50	95	97	83	77	76	69	65	62	84
	40	98	95	84	77	76	68	65	63	83
1300	100	102	101	97	93	92	91	82	74	98
	80	101	96	95	89	87	85	76	71	93
	60	96	94	94	86	84	79	74	71	90
	50	100	96	93	85	83	78	74	72	90
	40	108	103	94	86	85	79	75	73	93
1800	100	113	107	105	102	100	101	94	87	107
	80	106	101	101	99	96	94	89	82	102
	60	105	101	99	95	93	89	84	81	98
	50	103	100	99	94	91	87	84	81	97
	40	112	111	103	97	94	88	85	82	101
2506	100	118	117	112	110	108	107	104	97	114
	80	111	110	107	107	104	102	98	92	110
	60	100	110	106	104	100	98	93	89	106
	50	109	108	106	103	99	96	92	89	105
	40	118	119	114	106	102	98	93	90	110

The sound power level ratings shown are in decibels, referred to 10^{-12} watts calculated per AMCA Standard 301. Values shown are for inlet L_{Wi}, L_{Wi}A and outlet L_{Wo}, L_{Wo}A sound power levels for Installation Type B: free inlet, ducted outlet. Outlet ratings include the effects of duct end correction. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.

30 AFDW

Wheel Diameter = 30 in.
Outlet Area = 9.31 ft.^{2}
Tip Speed = 7.85 x RPM
Maximum BHP = (RPM/460)^3

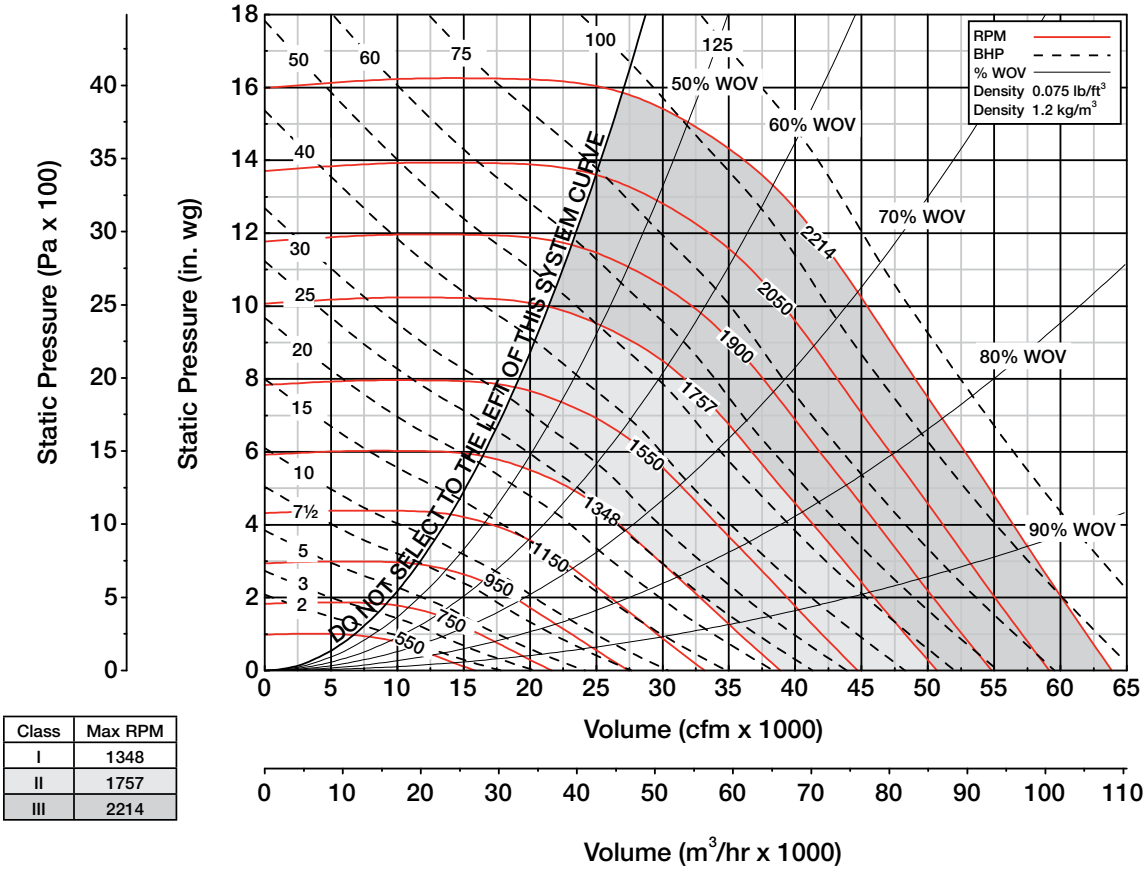
Minimum Starting HP = 1½
Maximum RPM Class I = 1348
Maximum RPM Class II = 1757
Maximum RPM Class III = 2214

CFM	OV	STATIC PRESSURE (in. wg)																			
		0.25		0.50		0.75		1.00		1.25		1.50		1.75		2.00		2.25		2.50	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
7000	751	345	0.42	422	0.74	493	1.11	558	1.51												
8500	912	386	0.59	453	0.94	516	1.34	574	1.78	631	2.26	683	2.75								
10000	1074	429	0.80	490	1.22	545	1.63	599	2.11	649	2.61	699	3.16	746	3.72	790	4.31				
11500	1235	473	1.06	532	1.54	582	2.02	628	2.50	675	3.04	721	3.61	763	4.21	807	4.84	848	5.49	887	6.16
13000	1396	519	1.37	574	1.92	621	2.46	665	3.00	706	3.54	747	4.14	789	4.78	828	5.44	864	6.12	903	6.83
14500	1557	565	1.74	617	2.37	663	2.98	703	3.58	742	4.18	779	4.78	815	5.41	854	6.12	890	6.85	925	7.59
16000	1718	613	2.20	661	2.89	705	3.56	745	4.23	781	4.90	816	5.56	850	6.22	882	6.89	917	7.64	951	8.43
17500	1879	661	2.72	707	3.48	748	4.22	787	4.96	822	5.69	855	6.43	887	7.15	918	7.87	948	8.60	977	9.35
19000	2040	709	3.32	753	4.16	792	4.99	829	5.77	864	6.58	896	7.37	926	8.17	956	8.96	985	9.73	1013	10.5
20500	2201	758	4.01	800	4.93	837	5.82	873	6.69	906	7.55	937	8.42	967	9.27	995	10.1	1022	11.0	1050	11.8
22000	2363	807	4.79	847	5.80	883	6.76	917	7.72	949	8.63	980	9.55	1009	10.5	1036	11.4	1062	12.3	1088	13.3
23500	2524	856	5.69	895	6.80	929	7.80	962	8.83	993	9.83	1022	10.8	1051	11.8	1078	12.8	1103	13.8	1128	14.8
25000	2685	906	6.69	943	7.87	976	8.97	1007	10.1	1037	11.2	1066	12.2	1093	13.2	1120	14.3	1145	15.4	1169	16.4
26500	2846	956	7.82	991	9.07	1023	10.3	1053	11.4	1082	12.6	1110	13.7	1136	14.8	1162	15.9	1187	17.0	1211	18.2
28000	3007	1006	9.07	1040	10.4	1071	11.7	1100	12.9	1128	14.1	1154	15.3	1180	16.5	1205	17.7	1230	18.8	1253	20.0
29500	3168	1056	10.5	1088	11.8	1119	13.2	1147	14.5	1174	15.8	1200	17.1	1225	18.4	1249	19.6	1273	20.8	1296	22.0

CFM	OV	STATIC PRESSURE (in. wg)																			
		2.50		3.00		3.50		4.00		4.50		5.00		5.50		6.00		6.50		7.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
13000	1396	903	6.83	976	8.31	1043	9.83														
14500	1557	925	7.59	993	9.13	1059	10.8	1122	12.4	1180	14.1										
16000	1718	951	8.43	1015	10.1	1076	11.7	1138	13.5	1196	15.3	1252	17.2	1305	19.1						
17500	1879	977	9.35	1041	11.1	1100	12.8	1155	14.6	1213	16.6	1268	18.5	1321	20.5	1371	22.6	1419	24.6		
19000	2040	1013	10.5	1068	12.2	1126	14.0	1181	15.9	1233	17.9	1285	19.9	1337	22.0	1387	24.2	1436	26.3	1482	28.5
20500	2201	1050	11.8	1102	13.5	1153	15.3	1207	17.3	1259	19.4	1308	21.5	1354	23.6	1404	25.8	1452	28.1	1498	30.4
22000	2363	1088	13.3	1139	15.1	1187	16.9	1234	18.8	1285	20.9	1334	23.1	1380	25.3	1425	27.6	1469	29.9	1515	32.3
23500	2524	1128	14.7	1176	16.7	1224	18.6	1269	20.6	1312	22.6	1360	24.9	1406	27.2	1451	29.6	1493	32.0	1535	34.4
25000	2685	1169	16.4	1216	18.5	1261	20.6	1305	22.6	1347	24.7	1388	26.8	1433	29.2	1477	31.6	1519	34.1	1560	36.7
26500	2846	1211	18.2	1257	20.4	1300	22.6	1342	24.8	1384	27.0	1424	29.2	1462	31.4	1504	33.8	1546	36.4	1587	39.1
28000	3007	1253	20.0	1298	22.4	1340	24.7	1380	27.1	1421	29.4	1461	31.7	1499	34.0	1535	36.4	1573	38.8	1613	41.6
29500	3168	1296	22.0	1340	24.5	1382	27.0	1421	29.5	1459	32.0	1498	34.4	1535	36.8	1571	39.3	1606	41.7	1640	44.2
31000	3329	1339	24.2	1382	26.8	1423	29.5	1462	32.0	1499	34.6	1535	37.3	1572	39.8	1608	42.3	1643	44.9	1676	47.5
32500	3490	1382	26.6	1425	29.3	1465	32.0	1504	34.8	1540	37.5	1576	40.2	1610	43.0	1645	45.6	1680	48.3	1713	51.0
34000	3651	1426	29.1	1468	31.9	1508	34.8	1546	37.7	1582	40.5	1617	43.3	1650	46.2	1683	49.1	1717	51.8	1750	54.6
35500	3813	1471	31.8	1512	34.8	1550	37.7	1588	40.7	1624	43.7	1658	46.7	1691	49.6	1723	52.6	1755	55.6	1787	58.5

CFM	OV	STATIC PRESSURE (in. wg)																			
		7.00		7.50		8.00		8.50		9.00		10.00		11.00		12.00		13.00		14.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
23000	2470	1526	33.7	1571	36.2	1614	38.7	1656	41.3	1696	43.9	1775	49.2	1849	54.7						
24600	2642	1553	36.1	1593	38.6	1632	41.2	1673	43.9	1714	46.6	1792	52.1	1866	57.7	1938	63.5	2006	69.3		
26200	2814	1581	38.6	1621	41.2	1659	43.9	1696	46.6	1732	49.3	1810	55.0	1884	60.9	1955	66.9	2023	72.9	2089	79.1
27800	2986	1610	41.2	1649	44.0	1687	46.7	1724	49.5	1760	52.4	1829	58.1	1902	64.2	1972	70.4	2041	76.6	2106	83.0
29400	3157	1638	44.0	1677	46.9	1715	49.7	1752	52.7	1788	55.6	1857	61.6	1923	67.6	1990	73.9	2058	80.4	2124	87.1
31000	3329	1676	47.5	1709	50.1	1744	52.9	1780	55.9	1816	59.0	1885	65.1	1950	71.4	2013	77.8	2076	84.4	2141	91.2
32600	3501	1715	51.2	1748	53.9	1779	56.6	1810	59.4	1844	62.5	1913	68.9	1978	75.4	2041	82.0	2101	88.7	2159	95.5
34200	3673	1755	55.1	1787	58.0	1818	60.8	1848	63.6	1878	66.5	1941	72.8	2006	79.5	2069	86.3	2129	93.2	2187	100
35800	3845	1794	59.3	1826	62.2	1857	65.2	1887	68.2	1917	71.1	1974	77.1	2035	83.8	2097	90.8	2157	97.9		
37400	4017	1836	63.7	1866	66.8	1897	69.8	1926	72.9	1956	76.0	2012	82.2	2066	88.5	2125	95.5	2185	103		
39000	4189	1879	68.2	1908	71.5	1937	74.7	1966	77.9	1995	81.1	2051	87.5	2105	94.0	2157	101	2213	108		
40600	4360	1923	72.9	1952	76.3	1979	79.7	2007	83.2	2035	86.5	2090	93.2	2144	99.9	2195	107				
42200	4532	1967	77.9	1995	81.4	2023	85.0	2050	88.5	2076	92.1	2130	99.0	2183	106						
43800	4704	2012	83.2	2040	86.8	2067	90.5	2093	94.1	2120	97.8	2170	105								
45400	4876	2057	88.6	2084	92.5	2111	96.3	2137	100	2163	104	2213	112								
47000	5048	2102	94.3	2129	98.3	2156	102	2182	106	2207	110										

Performance certified is for model AFDW Arrangement 3, Installation Type B: free inlet, ducted outlet.
Performance ratings do not include the effects of appurtenances (accessories).
Power rating (BHP) does not include transmission losses.



Class	Max RPM
I	1348
II	1757
III	2214

% WOV = (CFM X 100) / (RPM X 28.8)

Sound Power [dB Ref 10^{-12} watts]

RPM	%WOV	Inlet Sound Power, L_{Wi} 1	2	3	4	5	6	7	8	L_{Wi}A
400	100	92	78	78	75	68	59	55	51	76
	80	90	77	76	75	67	59	54	51	75
	60	89	76	75	74	67	58	54	50	74
	50	89	76	75	74	67	58	54	50	74
	40	89	76	74	74	67	58	54	50	74
600	100	95	91	86	80	77	69	61	59	83
	80	90	85	84	78	74	66	59	58	80
	60	89	83	82	77	74	65	59	58	79
	50	88	82	82	76	74	65	60	58	79
	40	92	84	82	76	74	65	60	58	79
800	100	91	93	90	87	85	78	71	66	89
	80	89	90	88	85	81	74	69	64	86
	60	89	91	87	83	79	73	69	65	85
	50	92	93	86	81	79	73	69	66	85
	40	95	91	86	82	79	74	70	66	85
1100	100	97	99	101	92	92	90	80	74	98
	80	94	95	97	89	88	84	76	72	93
	60	93	93	94	87	85	81	76	73	91
	50	95	93	92	86	85	80	77	74	90
	40	100	96	94	87	85	80	77	74	91
1600	100	108	101	110	102	100	103	95	87	108
	80	105	98	108	99	96	97	90	84	104
	60	104	95	106	96	93	91	86	84	101
	50	104	96	105	95	92	90	87	84	100
	40	111	105	106	97	92	90	87	85	101
2214	100	115	112	114	113	108	109	106	98	115
	80	113	109	112	110	104	104	100	94	112
	60	111	107	109	107	101	99	96	92	108
	50	111	107	109	106	100	98	95	93	108
	40	118	116	114	108	101	98	96	93	110

RPM	%WOV	Outlet Sound Power, L_{Wo} 1	2	3	4	5	6	7	8	L_{Wo}A
400	100	84	81	75	69	66	54	46	45	72
	80	84	79	73	67	64	51	43	44	70
	60	82	77	72	66	64	51	45	44	69
	50	83	77	72	67	64	51	46	45	70
	40	83	77	72	67	65	51	47	45	70
600	100	99	94	83	79	77	68	59	55	83
	80	95	90	80	75	74	63	55	52	80
	60	95	89	78	73	73	62	56	53	79
	50	94	89	77	73	73	61	56	54	78
	40	94	89	77	73	73	61	57	54	78
800	100	95	101	86	84	83	76	68	62	89
	80	91	98	83	80	79	71	64	60	85
	60	90	96	81	78	76	68	64	61	83
	50	96	97	82	77	76	68	65	63	84
	40	98	95	83	77	76	68	65	63	83
1100	100	101	99	96	92	92	89	79	72	96
	80	99	95	93	88	86	83	74	69	92
	60	95	93	92	85	83	77	73	70	89
	50	99	94	91	84	82	77	73	71	88
	40	106	99	92	85	83	77	74	72	90
1600	100	113	107	105	102	101	101	94	86	107
	80	106	101	102	99	96	94	88	81	102
	60	106	101	100	95	93	89	84	81	98
	50	104	100	99	94	92	87	84	82	97
	40	113	111	103	96	94	88	85	82	101
2214	100	120	117	113	110	108	109	104	97	115
	80	112	110	109	107	105	103	98	91	110
	60	112	110	107	104	101	98	93	90	107
	50	110	109	107	103	100	96	93	90	106
	40	119	119	113	106	102	98	94	91	110

The sound power level ratings shown are in decibels, referred to 10^{-12} watts calculated per AMCA Standard 301. Values shown are for inlet L_{Wi}, L_{Wi}A and outlet L_{Wo}, L_{Wo}A sound power levels for Installation Type B: free inlet, ducted outlet. Outlet ratings include the effects of duct end correction. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.

33 AFDW

Wheel Diameter = 33 in.
Outlet Area = 11.27 ft.^{2}
Tip Speed = 8.64 x RPM
Maximum BHP = (RPM/392)^3

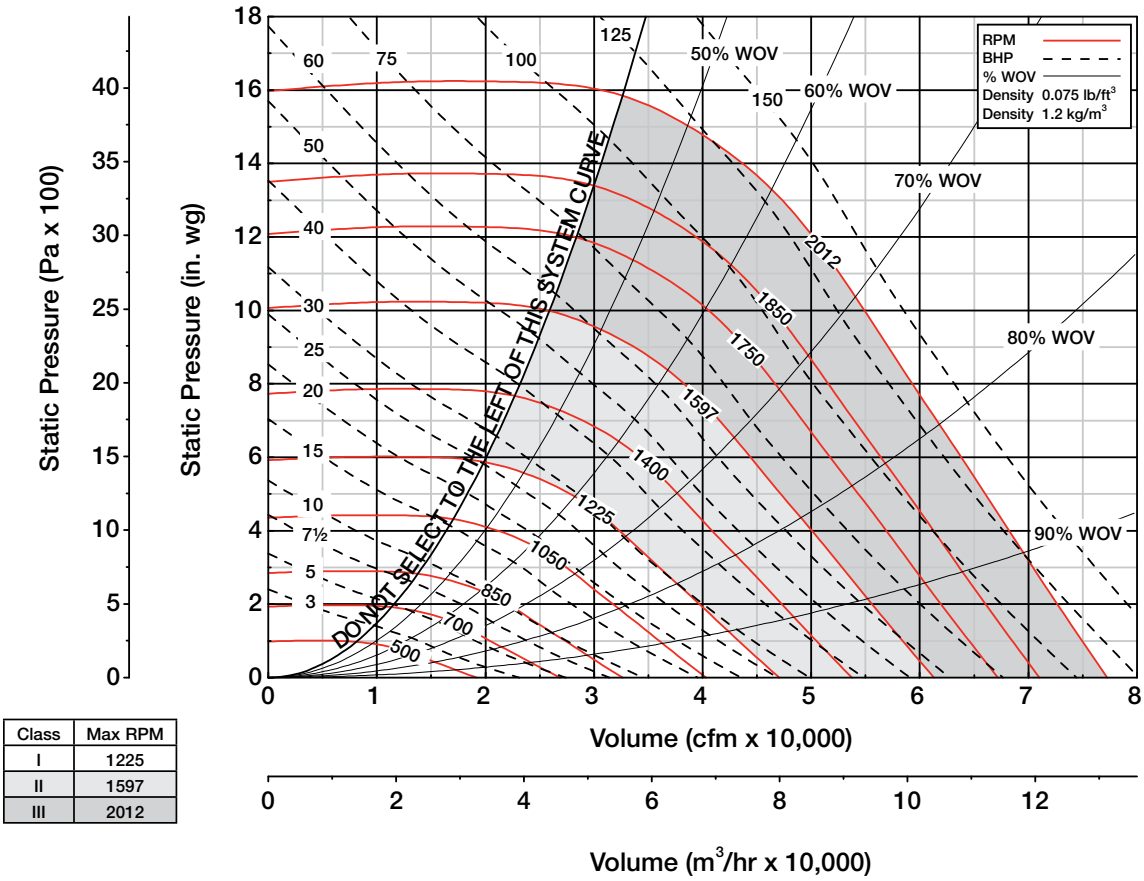
Minimum Starting HP = 1½
Maximum RPM Class I = 1225
Maximum RPM Class II = 1597
Maximum RPM Class III = 2012

CFM	OV	STATIC PRESSURE (in. wg)																			
		0.25		0.50		0.75		1.00		1.25		1.50		1.75		2.00		2.25		2.50	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
9000	798	324	0.57	391	0.95	453	1.41	511	1.92												
10800	958	362	0.78	421	1.23	476	1.71	528	2.26	578	2.85	625	3.47								
12600	1118	401	1.04	456	1.57	504	2.09	551	2.67	597	3.30	639	3.96	682	4.66	722	5.38	760	6.12		
14400	1277	441	1.37	493	1.98	538	2.58	580	3.17	621	3.82	662	4.54	700	5.27	737	6.04	775	6.84	810	7.66
16200	1437	482	1.76	532	2.45	574	3.13	613	3.81	650	4.48	685	5.18	723	5.98	758	6.79	792	7.62	825	8.49
18000	1597	525	2.24	571	3.01	612	3.77	649	4.52	683	5.27	717	6.01	748	6.77	782	7.63	815	8.52	846	9.43
19800	1756	568	2.80	611	3.66	650	4.49	686	5.33	719	6.15	750	6.98	781	7.79	810	8.62	839	9.49	870	10.5
21600	1916	611	3.45	652	4.39	689	5.32	724	6.22	756	7.13	786	8.03	814	8.93	843	9.82	870	10.7	896	11.6
23400	2076	654	4.19	694	5.23	729	6.25	763	7.23	794	8.21	823	9.19	850	10.2	876	11.2	903	12.1	928	13.1
25200	2236	698	5.04	736	6.18	770	7.28	802	8.36	832	9.40	860	10.5	887	11.5	912	12.6	937	13.6	962	14.7
27000	2395	743	6.02	779	7.27	811	8.43	842	9.61	871	10.7	899	11.9	925	13.0	950	14.1	973	15.3	996	16.4
28800	2555	787	7.12	822	8.48	853	9.71	883	11.0	910	12.2	937	13.4	963	14.6	987	15.8	1011	17.0	1033	18.2
30600	2715	832	8.35	865	9.79	896	11.1	924	12.5	950	13.8	976	15.1	1001	16.4	1025	17.7	1048	19.0	1070	20.2
32400	2874	877	9.73	909	11.3	938	12.7	965	14.1	991	15.5	1016	16.9	1040	18.3	1064	19.6	1086	21.0	1108	22.4
34200	3034	923	11.3	953	12.9	981	14.5	1007	15.9	1033	17.4	1057	18.9	1080	20.4	1103	21.8	1125	23.2	1146	24.6
36000	3194	968	13.0	997	14.6	1024	16.3	1050	17.9	1074	19.5	1098	21.0	1120	22.6	1142	24.1	1164	25.6	1185	27.1

CFM	OV	STATIC PRESSURE (in. wg)																			
		2.50		3.00		3.50		4.00		4.50		5.00		5.50		6.00		6.50		7.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
17000	1508	834	8.89	898	10.7	959	12.7	1015	14.7												
18800	1668	857	9.88	915	11.8	973	13.8	1030	15.9	1083	18.1	1133	20.3								
20600	1827	881	10.9	939	13.0	993	15.1	1045	17.3	1098	19.5	1148	21.9	1196	24.3	1242	26.7				
22400	1987	910	12.3	963	14.3	1016	16.5	1066	18.8	1113	21.1	1163	23.5	1211	26.0	1256	28.6	1300	31.2	1342	33.8
24200	2147	943	13.8	991	15.8	1040	18.0	1090	20.4	1137	22.8	1181	25.3	1226	27.9	1271	30.6	1315	33.3	1357	36.0
26000	2307	977	15.4	1024	17.6	1068	19.7	1114	22.1	1160	24.7	1204	27.3	1247	29.9	1287	32.6	1330	35.4	1372	38.3
27800	2466	1013	17.2	1057	19.5	1101	21.8	1142	24.1	1184	26.6	1228	29.4	1270	32.1	1311	34.9	1349	37.8	1387	40.7
29600	2626	1050	19.1	1092	21.6	1134	24.0	1175	26.5	1213	28.9	1252	31.6	1294	34.4	1334	37.4	1373	40.4	1410	43.4
31400	2786	1087	21.2	1129	23.8	1168	26.4	1208	29.0	1246	31.6	1282	34.2	1318	36.9	1358	40.0	1396	43.0	1434	46.2
33200	2945	1125	23.4	1166	26.1	1204	28.9	1242	31.7	1279	34.4	1315	37.2	1350	39.9	1383	42.7	1420	45.9	1457	49.1
35000	3105	1163	25.7	1204	28.7	1242	31.6	1278	34.5	1313	37.5	1348	40.3	1383	43.2	1416	46.1	1448	49.1	1481	52.2
36800	3265	1202	28.3	1242	31.4	1279	34.5	1315	37.5	1349	40.6	1382	43.7	1416	46.7	1449	49.7	1480	52.8	1511	55.9
38600	3425	1241	31.0	1280	34.2	1317	37.5	1352	40.7	1385	43.9	1418	47.2	1450	50.4	1482	53.6	1513	56.8	1544	60.0
40400	3584	1280	34.0	1319	37.3	1355	40.7	1390	44.2	1423	47.5	1454	50.9	1485	54.3	1516	57.6	1547	60.9	1577	64.3
42200	3744	1320	37.1	1358	40.6	1393	44.1	1427	47.7	1460	51.3	1492	54.8	1522	58.3	1551	61.8	1581	65.4	1610	68.8
44000	3904	1361	40.4	1397	44.1	1432	47.8	1466	51.5	1498	55.2	1529	58.9	1559	62.5	1588	66.2	1616	69.9	1644	73.6

CFM	OV	STATIC PRESSURE (in. wg)																			
		7.00		7.50		8.00		8.50		9.00		10.00		11.00		12.00		13.00		14.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
27000	2395	1380	39.6	1421	42.6	1460	45.7	1498	48.7	1535	51.8	1606	58.1								
29000	2573	1402	42.5	1438	45.5	1477	48.6	1515	51.8	1552	55.1	1623	61.7	1690	68.4	1755	75.2				
31000	2750	1428	45.5	1464	48.7	1499	51.9	1533	55.1	1568	58.4	1639	65.3	1707	72.3	1771	79.4	1833	86.7	1893	94.0
33000	2928	1455	48.8	1490	52.1	1525	55.4	1559	58.7	1592	62.1	1656	69.1	1723	76.3	1788	83.7	1850	91.2	1909	98.9
35000	3105	1481	52.2	1517	55.6	1551	59.1	1585	62.6	1618	66.1	1680	73.2	1740	80.5	1804	88.2	1866	96.0	1926	104
37000	3283	1515	56.3	1545	59.4	1578	63.0	1612	66.6	1644	70.2	1707	77.7	1766	85.2	1824	92.9	1883	101	1942	109
39000	3460	1551	60.9	1581	64.1	1609	67.4	1638	70.8	1671	74.6	1733	82.3	1792	90.1	1849	98.0	1904	106	1959	114
41000	3637	1588	65.8	1617	69.1	1646	72.5	1673	76.0	1700	79.4	1760	87.1	1819	95.2	1876	103	1930	112	1983	120
43000	3815	1625	70.9	1654	74.4	1682	78.0	1710	81.5	1737	85.1	1789	92.4	1845	101	1902	109	1957	118	2009	126
45000	3992	1664	76.3	1692	80.1	1719	83.7	1747	87.4	1773	91.2	1825	98.6	1874	106	1929	115	1983	124		
47000	4170	1705	81.9	1731	85.9	1757	89.8	1784	93.7	1810	97.5	1861	105	1910	113	1957	121	2010	130		
49000	4347	1746	87.8	1772	91.9	1797	96.1	1822	100	1848	104	1898	112	1947	120	1993	129				
51000	4525	1787	94.1	1813	98.3	1838	103	1862	107	1886	111	1935	120	1983	128						
53000	4702	1829	101	1854	105	1879	109	1903	114	1927	118	1973	127								
55000	4880	1871	108	1896	112	1921	117	1945	121	1968	126										
57000	5057	1913	115	1938	119	1963	124	1986	129	2009	134										

Performance certified is for model AFDW Arrangement 3, Installation Type B: free inlet, ducted outlet.
Performance ratings do not include the effects of appurtenances (accessories).
Power rating (BHP) does not include transmission losses.



Class	Max RPM
I	1225
II	1597
III	2012

% WOV = (CFM X 100) / (RPM X 38.4)

Sound Power [dB Ref 10^{-12} watts]

Inlet Sound Power, L_{Wi}										
RPM	%WOV	1	2	3	4	5	6	7	8	L_{Wi}A
400	100	96	81	81	78	71	62	58	54	79
	80	94	80	79	78	70	62	57	53	78
	60	93	79	78	77	70	61	57	53	77
	50	92	79	77	77	70	61	57	53	77
	40	92	79	77	77	70	61	57	53	77
600	100	98	94	89	83	80	71	64	62	86
	80	94	88	87	81	77	69	62	61	83
	60	92	86	85	80	77	68	62	61	82
	50	92	85	84	79	77	68	63	61	82
	40	95	87	85	79	77	68	62	61	82
800	100	95	96	93	89	87	81	74	69	92
	80	92	93	91	88	83	77	72	67	89
	60	93	94	89	86	82	76	72	68	88
	50	95	96	89	84	82	76	72	69	88
	40	99	94	89	85	82	77	73	69	88
1100	100	100	102	104	95	95	93	83	77	101
	80	98	98	100	92	90	87	79	75	96
	60	96	96	97	90	88	83	79	75	94
	50	99	96	95	89	87	83	80	76	93
	40	104	99	97	90	88	83	80	77	94
1500	100	109	104	111	103	102	103	96	88	109
	80	106	100	109	100	97	98	91	85	105
	60	105	98	106	97	94	92	88	85	102
	50	105	99	105	96	94	91	88	86	101
	40	112	107	107	98	94	91	89	86	102
2012	100	116	111	117	112	108	110	105	98	116
	80	114	108	114	109	104	105	100	94	112
	60	113	106	112	106	102	100	96	92	109
	50	113	107	111	105	101	99	96	93	108
	40	120	116	115	108	102	99	96	94	111

Outlet Sound Power, L_{Wo}										
RPM	%WOV	1	2	3	4	5	6	7	8	L_{Wo}A
400	100	87	84	78	72	69	57	49	48	75
	80	87	81	76	70	67	54	46	47	73
	60	84	80	75	69	67	54	48	47	72
	50	85	80	75	70	67	54	49	48	73
	40	85	80	75	70	68	54	50	48	73
600	100	102	97	85	82	80	71	62	58	86
	80	98	93	83	78	77	66	58	55	83
	60	98	92	81	76	76	65	59	56	82
	50	97	92	80	76	76	64	59	57	81
	40	97	92	80	76	76	64	60	57	81
800	100	97	104	89	87	86	79	71	65	92
	80	94	101	86	83	81	74	67	63	88
	60	93	99	84	81	79	71	67	64	86
	50	99	100	85	80	79	71	68	65	87
	40	101	97	86	80	79	71	68	66	86
1100	100	104	102	99	95	94	92	82	75	99
	80	102	97	96	91	89	86	77	72	94
	60	98	96	95	88	85	80	76	73	92
	50	102	97	94	87	85	80	76	74	91
	40	109	102	95	88	86	80	77	75	93
1500	100	114	108	106	104	103	102	94	87	108
	80	107	103	103	100	98	95	89	82	103
	60	107	102	101	97	94	90	85	82	99
	50	105	101	100	95	93	89	86	83	98
	40	115	112	103	98	95	89	86	83	102
2012	100	121	117	113	111	109	109	104	96	115
	80	114	110	110	108	105	103	98	91	111
	60	113	110	108	104	102	98	93	90	107
	50	111	109	107	104	100	97	93	90	106
	40	121	120	113	106	103	98	94	91	110

The sound power level ratings shown are in decibels, referred to 10^{-12} watts calculated per AMCA Standard 301. Values shown are for inlet L_{Wi}, L_{Wi}A and outlet L_{Wo}, L_{Wo}A sound power levels for Installation Type B: free inlet, ducted outlet. Outlet ratings include the effects of duct end correction. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.

36 AFDW

Wheel Diameter = 36½ in.
Outlet Area = 13.79 ft.^{2}
Tip Speed = 9.56 x RPM
Maximum BHP = (RPM/332)^3

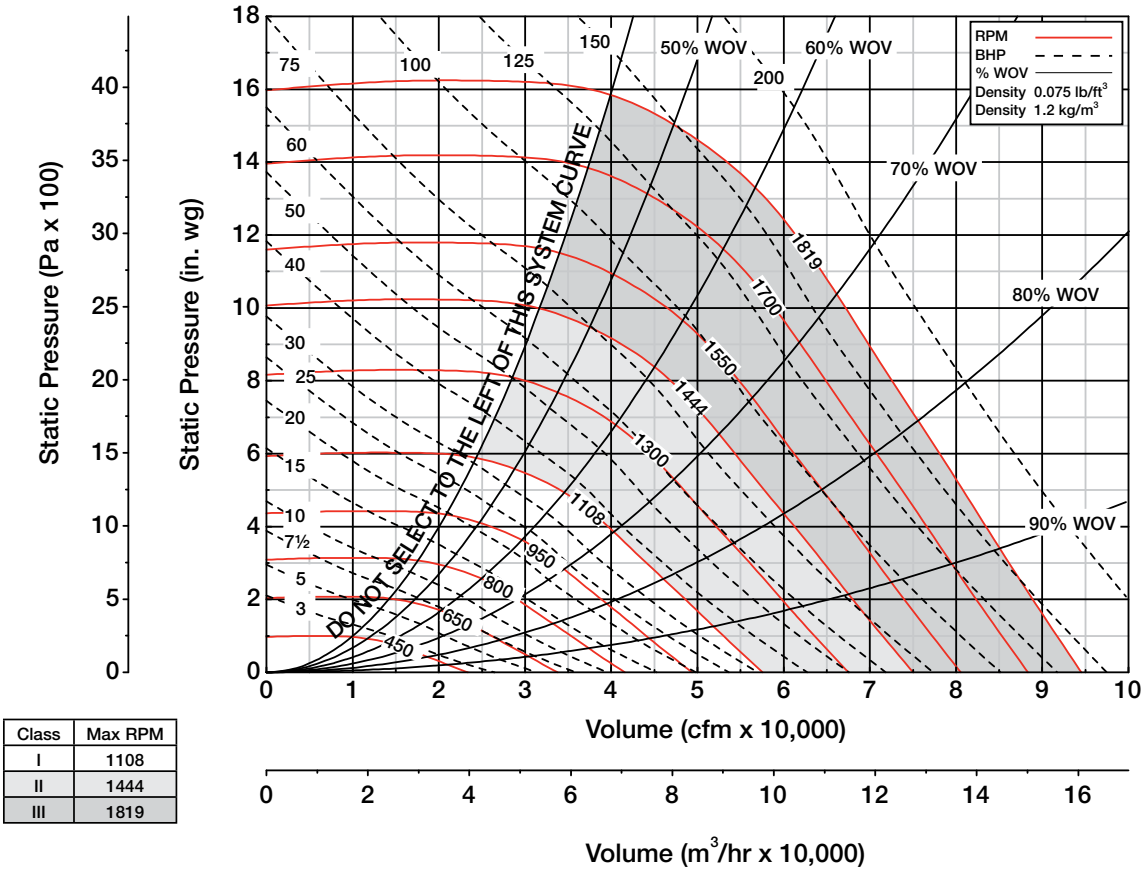
Minimum Starting HP = 2
Maximum RPM Class I = 1108
Maximum RPM Class II = 1444
Maximum RPM Class III = 1819

CFM	OV	STATIC PRESSURE (in. wg)																			
		0.25		0.50		0.75		1.00		1.25		1.50		1.75		2.00		2.25		2.50	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
12000	870	308	0.80	364	1.30	418	1.89	468	2.53	515	3.21										
14000	1015	339	1.06	392	1.65	438	2.24	484	2.93	527	3.67	569	4.45	608	5.26						
16000	1160	372	1.38	421	2.05	464	2.71	504	3.40	545	4.20	583	5.02	620	5.89	657	6.79	691	7.72	723	8.67
18000	1305	405	1.75	452	2.51	492	3.27	529	4.01	565	4.79	602	5.68	636	6.59	669	7.54	703	8.53	735	9.55
20000	1450	439	2.20	483	3.05	522	3.89	557	4.73	590	5.55	621	6.41	655	7.38	687	8.39	717	9.41	747	10.5
22000	1595	474	2.73	516	3.68	553	4.60	586	5.52	617	6.44	648	7.35	676	8.27	707	9.32	737	10.4	765	11.5
24000	1740	509	3.35	549	4.39	584	5.40	617	6.41	646	7.41	675	8.41	703	9.40	729	10.4	756	11.5	784	12.7
26000	1885	545	4.06	582	5.19	616	6.30	648	7.39	677	8.48	704	9.57	730	10.7	756	11.7	781	12.8	804	13.9
28000	2030	580	4.86	616	6.09	649	7.31	679	8.47	708	9.66	734	10.8	759	12.0	784	13.2	808	14.3	831	15.5
30000	2175	616	5.76	651	7.11	682	8.41	711	9.68	739	10.9	765	12.2	789	13.5	812	14.7	835	16.0	858	17.2
32000	2320	653	6.79	686	8.25	716	9.63	744	11.0	771	12.3	796	13.7	820	15.0	843	16.4	864	17.7	886	19.1
34000	2465	689	7.93	721	9.53	750	11.0	777	12.5	803	13.9	828	15.3	851	16.8	873	18.2	895	19.6	915	21.0
36000	2610	726	9.21	757	10.9	785	12.5	811	14.0	835	15.6	859	17.1	882	18.6	904	20.1	925	21.6	946	23.1
38000	2755	763	10.6	792	12.4	819	14.1	845	15.7	869	17.4	892	19.0	914	20.6	936	22.2	956	23.8	976	25.4
40000	2900	800	12.2	828	14.1	855	15.9	879	17.6	902	19.4	925	21.1	946	22.8	967	24.4	988	26.1	1007	27.8
42000	3045	837	13.9	864	15.9	890	17.9	914	19.7	936	21.5	958	23.3	979	25.1	999	26.8	1019	28.6	1039	30.4

CFM	OV	STATIC PRESSURE (in. wg)																			
		2.50		3.00		3.50		4.00		4.50		5.00		5.50		6.00		6.50		7.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
23000	1667	775	12.1	828	14.4	880	16.9	931	19.5	979	22.1	1025	24.8								
25000	1812	794	13.3	847	15.8	895	18.3	943	21.0	991	23.7	1037	26.6	1080	29.5	1121	32.5				
27000	1957	817	14.7	866	17.2	915	19.8	960	22.6	1003	25.4	1049	28.4	1092	31.5	1133	34.5	1173	37.7	1211	40.9
29000	2102	844	16.3	888	18.7	934	21.5	979	24.4	1022	27.3	1062	30.3	1104	33.5	1145	36.7	1185	40.0	1223	43.3
31000	2248	872	18.1	915	20.7	955	23.3	999	26.2	1041	29.3	1081	32.5	1119	35.7	1158	39.0	1197	42.4	1235	54.8
33000	2393	900	20.0	942	22.7	981	25.5	1019	28.3	1061	31.5	1100	34.7	1139	38.0	1175	41.4	1210	44.9	1248	48.4
35000	2538	930	22.1	970	25.0	1009	27.9	1046	30.8	1081	33.7	1120	37.1	1158	40.6	1194	44.1	1229	47.6	1263	51.2
37000	2683	961	24.2	999	27.3	1036	30.4	1073	33.5	1107	36.5	1141	39.6	1178	43.2	1214	46.8	1249	50.5	1282	54.3
39000	2828	992	26.6	1029	29.8	1065	33.1	1100	36.3	1134	39.5	1167	42.8	1199	46.1	1234	49.7	1268	53.6	1302	57.4
41000	2973	1023	29.1	1060	32.5	1095	35.9	1128	39.4	1162	42.7	1194	46.1	1226	49.5	1256	53.0	1288	56.7	1321	60.8
43000	3118	1054	31.7	1091	35.4	1125	38.9	1158	42.5	1189	46.2	1222	49.7	1253	53.2	1282	56.8	1311	60.4	1341	64.2
45000	3263	1086	34.5	1122	38.3	1156	42.1	1188	45.9	1219	49.7	1249	53.4	1280	57.1	1309	60.8	1338	64.5	1366	68.3
47000	3408	1118	37.6	1153	41.5	1187	45.5	1219	49.4	1249	53.3	1278	57.3	1308	61.2	1337	65.1	1365	68.9	1393	72.8
49000	3553	1151	40.8	1185	44.9	1218	49.0	1250	53.2	1280	57.2	1308	61.3	1336	65.5	1364	69.5	1393	73.6	1420	77.6
51000	3698	1183	44.3	1217	48.5	1250	52.8	1281	57.1	1310	61.4	1339	65.6	1366	69.9	1393	74.2	1420	78.4	1447	82.6
53000	3843	1216	47.9	1249	52.3	1281	56.7	1312	61.2	1341	65.7	1370	70.1	1397	74.5	1423	79.0	1449	83.5	1475	87.8

CFM	OV	STATIC PRESSURE (in. wg)																			
		7.00		7.50		8.00		8.50		9.00		10.00		11.00		12.00		13.00		14.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
32500	2356	1244	47.8	1281	51.4	1317	55.1	1351	58.8	1385	62.6	1449	70.2								
35000	2538	1263	51.2	1297	54.9	1332	58.8	1366	62.7	1400	66.6	1464	74.6	1525	82.7	1584	91.1				
37500	2719	1287	55.1	1320	58.9	1351	62.7	1382	66.7	1415	70.8	1479	79.1	1540	87.6	1599	96.3	1655	105		
40000	2900	1311	59.1	1344	63.1	1375	67.1	1406	71.2	1435	75.3	1495	83.8	1556	92.6	1614	102	1670	111	1724	120
42500	3081	1336	63.3	1368	67.5	1399	71.7	1430	75.9	1459	80.2	1516	88.9	1571	97.8	1629	107	1685	117	1739	126
45000	3263	1366	68.3	1393	72.1	1424	76.5	1454	80.9	1484	85.4	1540	94.4	1594	104	1646	113	1700	123	1754	133
47500	3444	1399	74.0	1426	78.0	1452	82.0	1479	86.2	1508	90.8	1565	100	1618	110	1670	119	1720	129	1770	139
50000	3625	1433	80.1	1460	84.2	1486	88.3	1511	92.5	1535	96.7	1589	106	1643	116	1694	126	1744	136	1791	146
52500	3807	1468	86.5	1494	90.8	1519	95.1	1544	99.5	1569	104	1615	113	1667	123	1718	133	1768	143	1815	154
55000	3988	1503	93.3	1529	97.8	1554	102	1578	107	1602	111	1649	121	1694	130	1743	140	1792	151		
57500	4169	1541	100	1565	105	1588	110	1613	115	1637	119	1683	129	1727	138	1770	148	1817	159		
60000	4350	1579	108	1602	113	1625	118	1648	123	1671	128	1717	138	1761	147	1803	157				
62500	4532	1617	115	1640	121	1663	126	1685	131	1707	136	1751	147	1795	157						
65000	4713	1656	124	1679	129	1701	134	1723	140	1744	145	1786	156								
67500	4894	1695	132	1718	138	1740	144	1761	149	1782	155										
70000	5076	1734	141	1756	147	1778	153	1800	159												

Performance certified is for model AFDW Arrangement 3, Installation Type B: free inlet, ducted outlet.
Performance ratings do not include the effects of appurtenances (accessories).
Power rating (BHP) does not include transmission losses.



Class	Max RPM
I	1108
II	1444
III	1819

% WOV = (CFM X 100) / (RPM X 52.0)

Sound Power [dB Ref 10^{-12} watts]

Inlet Sound Power, L_{Wi}

RPM	%WOV	1	2	3	4	5	6	7	8	$L_{Wi}A$
350	100	83	84	83	80	76	71	65	60	82
	80	84	85	83	79	76	71	65	60	81
	60	84	85	82	79	76	71	65	60	81
	50	85	85	83	80	76	71	65	60	82
	40	88	87	84	80	76	71	65	60	82
500	100	87	87	84	82	79	74	65	60	84
	80	85	85	83	82	79	74	65	58	84
	60	83	84	82	81	79	74	65	59	83
	50	82	84	82	81	79	74	65	59	83
	40	83	84	82	81	79	74	65	60	83
700	100	98	99	92	86	84	79	72	68	90
	80	97	97	89	85	83	78	71	66	89
	60	93	94	87	84	83	78	71	67	88
	50	93	94	87	84	83	78	72	68	88
	40	92	94	87	84	84	79	72	68	88
900	100	96	103	97	91	90	84	79	76	95
	80	91	102	94	87	87	81	77	73	92
	60	89	98	90	84	87	81	78	75	91
	50	89	96	89	84	87	81	79	75	90
	40	89	99	89	83	87	81	79	76	91
1300	100	102	112	110	101	99	95	90	86	106
	80	98	110	108	97	95	90	86	84	103
	60	96	108	105	94	92	88	86	84	100
	50	96	106	103	93	91	88	87	85	99
	40	97	105	102	92	91	89	87	86	98
1819	100	107	115	124	112	106	104	99	95	117
	80	104	112	122	109	102	100	95	92	115
	60	102	109	119	105	99	98	94	93	112
	50	102	109	117	104	98	98	94	94	110
	40	103	109	115	103	98	98	95	94	109

Outlet Sound Power, L_{Wo}

RPM	%WOV	1	2	3	4	5	6	7	8	$L_{Wo}A$
350	100	83	81	79	75	71	63	54	47	77
	80	82	81	78	75	71	63	55	46	77
	60	81	80	78	75	71	63	55	46	76
	50	81	79	77	75	71	63	55	47	76
	40	80	79	77	74	71	63	55	47	76
500	100	95	90	82	79	76	70	62	56	82
	80	94	89	81	78	75	70	61	54	81
	60	92	86	79	77	75	69	61	54	80
	50	91	85	78	77	75	69	61	54	79
	40	92	86	78	76	74	69	61	54	79
700	100	107	104	91	86	83	78	72	66	92
	80	103	101	89	84	81	76	70	63	89
	60	99	98	85	82	79	75	69	63	87
	50	97	97	85	82	79	75	69	64	86
	40	97	97	85	82	79	75	69	64	86
900	100	103	106	97	93	90	84	78	73	96
	80	97	102	92	88	86	80	75	71	92
	60	96	100	89	85	84	77	74	71	90
	50	95	100	88	84	84	77	74	71	89
	40	95	101	87	83	84	77	74	71	90
1300	100	109	112	109	103	100	95	90	84	106
	80	105	111	108	101	97	91	86	82	104
	60	102	109	104	96	92	87	84	81	100
	50	102	109	104	95	91	87	84	82	100
	40	101	107	102	94	91	87	85	82	99
1819	100	114	118	121	112	109	105	100	94	116
	80	110	115	121	110	106	101	96	91	115
	60	108	112	119	105	101	97	93	90	112
	50	107	112	119	104	100	96	92	91	112
	40	107	111	117	103	100	96	92	91	110

The sound power level ratings shown are in decibels, referred to 10^{-12} watts calculated per AMCA Standard 301. Values shown are for inlet L_{Wi}, $L_{Wi}A$ and outlet L_{Wo}, $L_{Wo}A$ sound power levels for Installation Type B: free inlet, ducted outlet. Outlet ratings include the effects of duct end correction. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.

40 AFDW

Wheel Diameter = 40¼ in.
Outlet Area = 16.77 ft.^{2}
Tip Speed = 10.54 x RPM
Maximum BHP = (RPM/284)^3

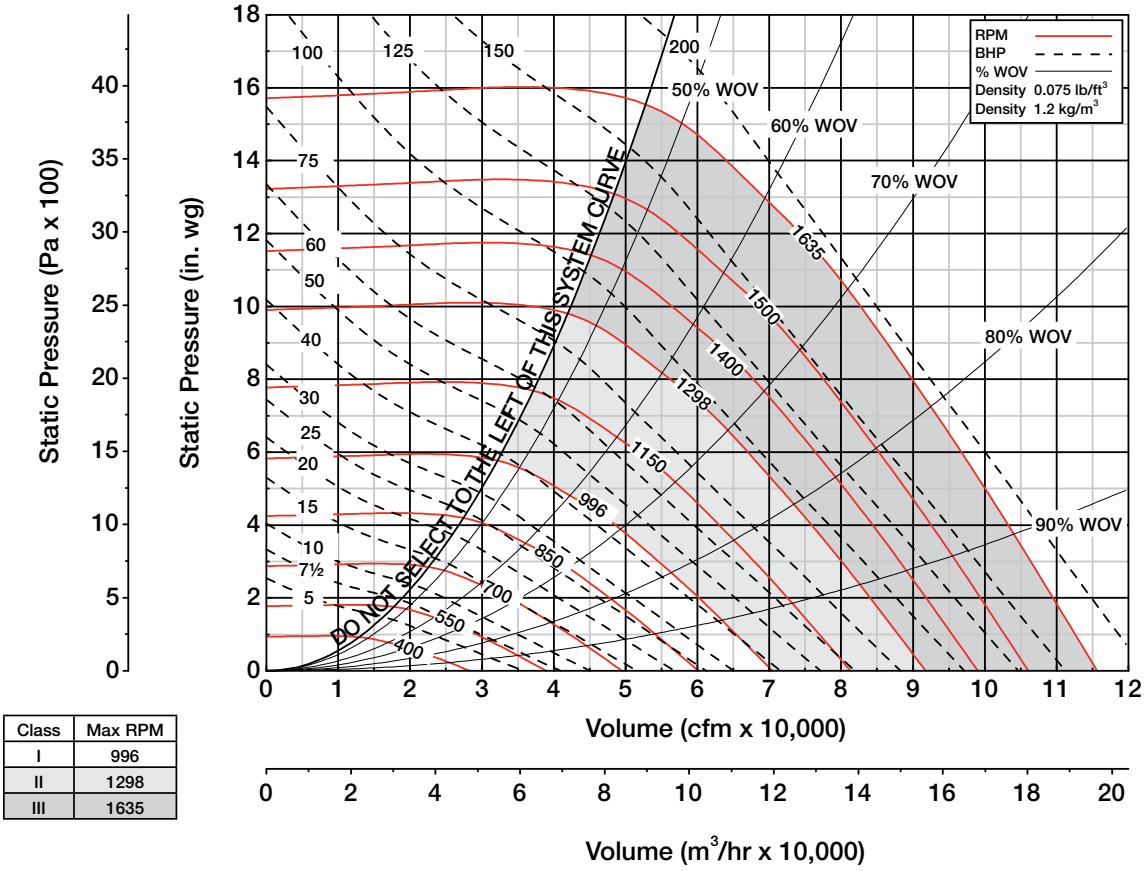
Minimum Starting HP = 5
Maximum RPM Class I = 996
Maximum RPM Class II = 1298
Maximum RPM Class III = 1635

CFM	OV	STATIC PRESSURE (in. wg)																			
		0.25		0.50		0.75		1.00		1.25		1.50		1.75		2.00		2.25		2.50	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
16000	954	290	1.06	341	1.73	387	2.45	429	3.22	469	4.08										
18800	1121	322	1.44	369	2.20	410	3.00	450	3.85	486	4.74	520	5.67	554	6.72						
21600	1288	356	1.91	399	2.77	437	3.66	473	4.59	508	5.56	540	6.57	571	7.62	600	8.69	630	9.89	660	11.2
24400	1454	390	2.50	430	3.45	466	4.44	499	5.45	531	6.50	562	7.59	592	8.71	620	9.88	647	11.1	672	12.3
27200	1621	426	3.22	463	4.26	497	5.35	528	6.46	557	7.59	586	8.75	614	10.0	641	11.2	667	12.5	693	13.8
30000	1788	462	4.08	497	5.21	528	6.39	558	7.60	586	8.83	613	10.1	638	11.4	665	12.7	690	14.0	714	15.4
32800	1955	499	5.08	531	6.31	561	7.59	589	8.89	616	10.2	641	11.6	666	12.9	689	14.3	713	15.8	737	17.2
35600	2122	536	6.25	566	7.60	594	8.96	621	10.4	647	11.8	671	13.2	694	14.7	717	16.2	739	17.7	761	19.2
38400	2289	573	7.61	602	9.06	628	10.5	654	12.0	678	13.5	702	15.1	724	16.6	746	18.2	767	19.8	788	21.4
41200	2456	611	9.16	638	10.7	663	12.3	688	13.9	711	15.5	733	17.0	755	18.8	776	20.5	796	22.1	816	23.8
44000	2623	649	10.9	674	12.6	699	14.2	722	15.9	744	17.6	765	19.4	786	21.1	807	22.9	826	24.7	845	26.5
46800	2790	687	12.9	711	14.7	734	16.5	756	18.2	778	20.0	798	21.8	818	23.7	838	25.6	857	27.5	875	29.4
49600	2957	725	15.2	748	17.0	770	18.9	791	20.8	812	22.6	832	24.6	851	26.5	870	28.5	888	30.5	906	32.5
52400	3124	764	17.6	786	19.6	807	21.6	827	23.6	846	25.5	866	27.5	885	29.6	903	31.6	920	33.7	938	35.8
55200	3291	802	20.4	823	22.5	843	24.6	863	26.7	882	28.7	900	30.8	918	32.9	936	35.1	953	37.3	970	39.5
58000	3458	841	23.4	861	25.6	880	27.8	899	30.0	917	32.2	935	34.4	952	36.6	969	38.8	986	41.1	1002	43.4

CFM	OV	STATIC PRESSURE (in. wg)																			
		2.50		3.00		3.50		4.00		4.50		5.00		5.50		6.00		6.50		7.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
28000	1669	699	14.2	746	16.9	789	19.7	837	23.0												
30600	1824	719	15.8	765	18.6	808	21.6	848	24.6	891	28.0	934	31.6								
33200	1979	740	17.5	785	20.5	827	23.6	867	26.8	905	30.1	942	33.5	983	37.4	1022	41.3				
35800	2134	762	19.3	806	22.5	847	25.7	887	29.1	924	32.5	960	36.0	994	39.6	1031	43.5	1068	47.7	1103	52.0
38400	2289	788	21.4	828	24.7	869	28.1	907	31.6	944	35.2	979	38.8	1013	42.6	1046	46.4	1077	50.2	1112	54.6
41000	2444	814	23.7	852	27.1	891	30.6	928	34.3	964	38.0	999	41.8	1032	45.7	1065	49.7	1096	53.7	1126	57.7
43600	2599	841	26.1	879	29.7	914	33.4	950	37.2	985	41.1	1019	45.0	1052	49.0	1084	53.1	1115	57.3	1145	61.5
46200	2754	869	28.7	905	32.5	940	36.4	973	40.3	1007	44.3	1041	48.4	1073	52.6	1104	56.8	1134	61.1	1164	65.5
48800	2909	898	31.5	932	35.5	966	39.3	999	43.6	1030	47.8	1063	52.0	1095	56.4	1125	60.7	1155	65.2	1184	69.7
51400	3064	927	34.6	960	38.8	993	43.0	1025	47.2	1056	51.5	1085	55.9	1117	60.4	1147	64.9	1176	69.5	1204	74.2
54000	3220	956	37.9	989	42.2	1021	46.6	1052	51.1	1082	55.5	1111	60.0	1139	64.6	1169	69.3	1198	74.1	1226	78.9
56600	3375	986	41.4	1018	45.9	1049	50.5	1079	55.1	1109	59.8	1137	64.5	1165	69.2	1192	74.0	1220	78.9	1248	83.9
59200	3530	1017	45.1	1048	49.9	1078	54.6	1107	59.4	1136	64.3	1164	69.1	1191	74.1	1218	79.0	1243	84.0	1270	89.2
61800	3685	1047	49.2	1078	54.1	1108	59.0	1136	64.0	1164	69.0	1191	74.1	1218	79.2	1244	84.3	1269	89.5	1294	94.7
64400	3840	1079	53.5	1108	58.5	1137	63.7	1165	68.8	1192	74.0	1219	79.3	1245	84.6	1271	89.9	1296	95.2	1320	101
67000	3995	1110	58.1	1139	63.3	1167	68.6	1195	74.0	1221	79.3	1247	84.8	1272	90.3	1297	95.8	1322	101	1346	107

CFM	OV	STATIC PRESSURE (in. wg)																			
		7.00		7.50		8.00		8.50		9.00		10.00		11.00		12.00		13.00		14.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
41000	2444	1126	57.7	1156	61.9	1189	66.6	1221	71.4	1253	76.3										
44000	2623	1148	62.1	1177	66.5	1205	70.8	1233	75.2	1263	80.2	1323	90.5								
47000	2802	1170	66.8	1199	71.3	1227	75.9	1254	80.5	1281	85.1	1333	94.8	1390	106	1445	117				
50000	2981	1193	71.7	1221	76.4	1249	81.2	1276	86.0	1303	90.8	1353	101	1402	111	1455	122	1508	134		
53000	3160	1218	77.1	1245	81.9	1272	86.7	1299	91.7	1325	96.8	1375	107	1424	117	1470	128	1518	139	1569	152
56000	3339	1243	82.7	1270	87.7	1296	92.8	1322	97.9	1347	103	1398	114	1446	124	1492	135	1536	147	1579	158
59000	3518	1268	88.8	1295	93.9	1321	99.2	1347	105	1372	110	1420	121	1468	132	1514	143	1558	155	1600	166
62000	3697	1296	95.2	1321	101	1347	106	1372	111	1397	117	1444	128	1490	140	1536	151	1580	163	1622	175
65000	3875	1326	102	1350	108	1373	113	1398	119	1422	124	1469	136	1515	148	1558	160	1602	172		
68000	4054	1356	109	1380	115	1403	121	1425	126	1448	132	1495	144	1540	156	1583	169	1625	181		
71000	4233	1387	117	1410	123	1433	129	1455	135	1476	141	1520	153	1565	165	1608	178				
74000	4412	1418	125	1441	131	1464	137	1485	143	1507	150	1548	162	1590	175	1633	188				
77000	4591	1451	134	1472	140	1494	146	1516	153	1537	159	1578	172	1617	185						
80000	4770	1484	143	1505	149	1526	156	1547	162	1568	169	1608	182								
83000	4949	1517	152	1538	159	1559	166	1579	172	1599	179										
86000	5128	1551	162	1571	169	1592	176	1611	183	1631	190										

Performance certified is for model AFDW Arrangement 3, Installation Type B: free inlet, ducted outlet.
Performance ratings do not include the effects of appurtenances (accessories).
Power rating (BHP) does not include transmission losses.



Class	Max RPM
I	996
II	1298
III	1635

% WOV = (CFM X 100) / (RPM X 70.7)

Sound Power [dB Ref 10^{-12} watts]

Inlet Sound Power, L_{Wi}

RPM	%WOV	1	2	3	4	5	6	7	8	L_{Wi}A
300	100	84	83	82	78	75	69	63	58	80
	80	85	84	82	78	75	69	63	58	80
	60	85	84	81	78	75	69	63	58	80
	50	85	84	82	78	75	69	63	58	80
	40	89	85	83	78	75	69	63	58	81
400	100	87	83	81	79	76	70	60	57	81
	80	85	82	80	80	76	70	59	55	81
	60	83	81	80	79	76	70	60	55	80
	50	82	81	79	79	76	70	60	56	81
	40	82	81	80	79	76	70	60	56	81
600	100	99	95	90	85	83	77	70	67	88
	80	98	93	87	83	83	76	69	65	87
	60	94	90	85	83	83	76	69	66	86
	50	94	91	85	83	83	76	70	66	87
	40	93	91	85	84	83	77	71	67	87
800	100	97	104	96	91	90	83	79	76	95
	80	93	102	93	87	87	81	77	73	92
	60	91	98	89	85	87	80	78	74	91
	50	90	97	88	84	87	81	79	75	90
	40	91	100	88	84	87	81	79	76	91
1200	100	104	115	110	101	100	95	90	87	106
	80	100	113	107	98	96	91	87	84	103
	60	98	110	104	94	93	89	88	85	101
	50	98	108	102	93	93	89	88	86	100
	40	99	107	101	92	93	89	89	87	99
1635	100	109	117	124	111	107	104	99	95	117
	80	106	114	122	108	103	100	95	92	115
	60	104	112	120	105	100	98	95	93	112
	50	104	111	118	103	99	98	95	94	111
	40	105	111	116	102	99	98	95	94	110

Outlet Sound Power, L_{Wo}

RPM	%WOV	1	2	3	4	5	6	7	8	L_{Wo}A
300	100	83	80	78	74	70	60	53	44	76
	80	83	80	78	74	70	61	53	44	76
	60	81	79	77	74	70	61	53	44	75
	50	81	78	77	73	70	61	53	45	75
	40	81	78	76	73	70	61	53	45	75
400	100	94	86	78	77	73	66	57	52	79
	80	93	84	77	75	72	65	56	51	78
	60	91	81	76	75	72	65	56	51	77
	50	90	80	75	75	72	65	56	51	76
	40	91	80	74	75	72	65	56	50	76
600	100	107	99	89	85	82	76	70	65	89
	80	103	98	86	83	79	75	68	62	87
	60	99	94	82	82	78	74	67	62	85
	50	98	94	82	82	78	74	67	62	85
	40	98	95	82	82	78	74	67	63	85
800	100	104	106	96	93	90	83	78	73	96
	80	98	103	91	88	86	79	75	71	92
	60	97	100	88	85	84	77	74	71	90
	50	96	100	87	84	84	77	74	71	89
	40	96	101	86	83	84	77	74	71	89
1200	100	110	114	108	104	101	96	90	85	107
	80	106	113	107	102	97	92	87	83	104
	60	103	112	103	97	93	88	85	82	101
	50	103	111	102	96	92	87	86	83	100
	40	103	110	101	95	92	87	86	83	99
1635	100	116	119	122	112	109	105	99	94	116
	80	112	116	121	110	106	101	96	91	115
	60	109	114	120	105	101	97	93	90	113
	50	109	114	120	104	100	96	93	91	112
	40	108	113	118	103	100	96	93	91	111

The sound power level ratings shown are in decibels, referred to 10^{-12} watts calculated per AMCA Standard 301. Values shown are for inlet L_{Wi}, L_{Wi}A and outlet L_{Wo}, L_{Wo}A sound power levels for Installation Type B: free inlet, ducted outlet. Outlet ratings include the effects of duct end correction. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.

44 AFDW

Wheel Diameter = 44½ in.
Outlet Area = 20.49 ft.^{2}
Tip Speed = 11.65 x RPM
Maximum BHP = (RPM/240)^3

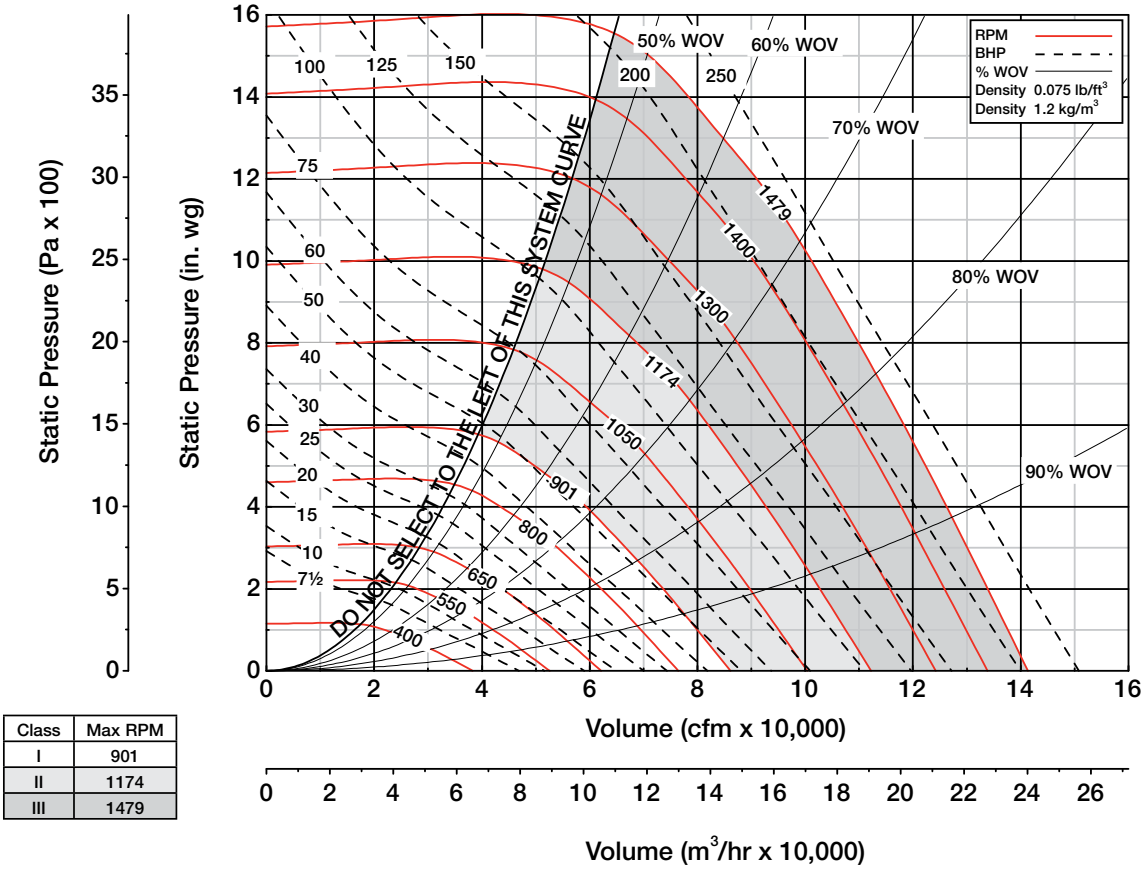
Minimum Starting HP = 7½
Maximum RPM Class I = 901
Maximum RPM Class II = 1174
Maximum RPM Class III = 1479

CFM	OV	STATIC PRESSURE (in. wg)																			
		0.25		0.50		0.75		1.00		1.25		1.50		1.75		2.00		2.25		2.50	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
19000	927	257	1.24	304	2.03	347	2.90	385	3.82	423	4.88										
22500	1098	287	1.69	330	2.60	368	3.57	404	4.59	437	5.67	467	6.79	500	8.10						
26000	1268	318	2.26	357	3.30	392	4.37	425	5.50	457	6.67	486	7.89	514	9.16	540	10.5	568	12.0	596	13.5
29500	1439	350	2.98	386	4.14	419	5.34	449	6.56	478	7.83	507	9.15	533	10.5	559	11.9	583	13.4	606	14.8
33000	1610	383	3.86	416	5.13	447	6.45	475	7.80	502	9.17	528	10.6	554	12.1	578	13.6	602	15.1	625	16.7
36500	1781	416	4.93	447	6.30	476	7.74	503	9.22	529	10.7	553	12.2	576	13.8	600	15.4	623	17.0	644	18.7
40000	1952	450	6.17	479	7.68	507	9.23	532	10.8	556	12.5	579	14.1	601	15.8	622	17.4	645	19.2	666	21.0
43500	2122	485	7.64	512	9.27	537	10.9	562	12.7	585	14.4	607	16.2	628	18.0	649	19.8	668	21.6	688	23.4
47000	2293	519	9.33	545	11.1	569	12.9	592	14.7	614	16.6	635	18.5	655	20.4	675	22.3	694	24.3	713	26.2
50500	2464	554	11.3	578	13.2	601	15.1	623	17.0	644	19.0	664	21.0	684	23.1	703	25.1	721	27.2	739	29.3
54000	2635	589	13.5	612	15.6	634	17.6	654	19.6	675	21.7	694	23.9	713	26.0	731	28.2	749	30.4	766	32.6
57500	2806	624	16.0	646	18.2	667	20.4	687	22.5	706	24.7	725	27.0	743	29.2	760	31.5	778	33.9	794	36.2
61000	2977	660	18.8	680	21.1	700	23.5	719	25.7	737	28.0	756	30.4	773	32.8	790	35.2	807	37.7	823	40.1
64500	3147	695	22.0	715	24.4	734	26.9	752	29.3	770	31.7	787	34.2	804	36.7	820	39.2	836	41.8	852	44.4
68000	3318	731	25.5	750	28.0	768	30.6	785	33.2	802	35.7	819	38.3	835	40.9	851	43.6	866	46.2	881	48.9
71500	3489	767	29.3	785	32.0	802	34.7	819	37.5	835	40.1	851	42.8	867	45.5	882	48.3	897	51.1	912	53.9

CFM	OV	STATIC PRESSURE (in. wg)																			
		2.50		3.00		3.50		4.00		4.50		5.00		5.50		6.00		6.50		7.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
34000	1659	630	17.2	673	20.5	713	24.0	756	28.0												
37200	1815	649	19.1	690	22.6	730	26.2	766	29.9	805	34.1	844	38.5								
40400	1971	668	21.2	708	24.9	747	28.7	783	32.6	818	36.6	852	40.8	888	45.5	924	50.3				
43600	2127	689	23.5	728	27.4	765	31.3	801	35.4	835	39.6	867	43.9	898	48.2	932	53.0	965	58.2	997	63.4
46800	2284	711	26.0	748	30.1	785	34.2	819	38.5	853	42.8	885	47.3	916	51.9	945	56.5	974	61.2	1005	66.5
50000	2440	735	28.8	770	33.0	805	37.3	839	41.8	871	46.3	902	50.9	933	55.7	962	60.5	991	65.4	1018	70.4
53200	2596	760	31.8	794	36.2	826	40.7	859	45.3	891	50.1	921	54.8	951	59.7	980	64.8	1008	69.9	1035	75.1
56400	2752	785	35.0	818	39.7	850	44.4	879	49.1	911	54.0	941	59.1	970	64.1	998	69.3	1026	74.6	1053	80.0
59600	2908	811	38.5	843	43.4	874	48.3	903	53.3	931	58.3	961	63.5	990	68.8	1017	74.1	1044	79.6	1070	85.1
62800	3064	838	42.3	869	47.4	898	52.5	927	57.7	955	62.9	981	68.2	1010	73.7	1037	79.3	1063	84.9	1089	90.6
66000	3221	865	46.3	895	51.6	923	57.0	951	62.4	979	67.8	1005	73.4	1030	79.0	1057	84.7	1083	90.6	1109	96.4
69200	3377	892	50.6	921	56.1	949	61.7	976	67.4	1003	73.1	1029	78.8	1054	84.6	1078	90.5	1103	96.5	1129	103
72400	3533	920	55.2	948	61.0	976	66.8	1002	72.7	1028	78.7	1053	84.6	1078	90.6	1102	96.6	1125	103	1149	109
75600	3689	948	60.2	975	66.2	1002	72.2	1028	78.3	1053	84.5	1078	90.7	1102	96.9	1126	103	1148	110	1171	116
78800	3845	976	65.5	1003	71.7	1029	78.0	1055	84.3	1079	90.7	1103	97.1	1127	104	1150	110	1172	117	1194	123
82000	4001	1005	71.1	1031	77.6	1056	84.1	1081	90.6	1106	97.2	1129	104	1152	111	1174	117	1197	124	1218	131

CFM	OV	STATIC PRESSURE (in. wg)																			
		7.00		7.50		8.00		8.50		9.00		10.00		11.00		12.00		13.00		14.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
50000	2440	1018	70.4	1045	75.5	1075	81.3	1104	87.2	1133	93.1										
53700	2620	1038	75.8	1064	81.1	1090	86.4	1114	91.8	1142	97.8	1196	111								
57400	2801	1058	81.5	1084	87.0	1109	92.6	1134	98.2	1158	104	1205	116	1257	129	1307	143				
61100	2981	1079	87.6	1104	93.3	1130	99.1	1154	105	1178	111	1224	123	1268	135	1316	149	1364	164		
64800	3162	1101	94.2	1126	100	1150	106	1175	112	1198	118	1244	131	1288	144	1329	156	1373	170	1419	186
68500	3343	1124	101	1149	107	1173	113	1196	120	1219	126	1264	139	1308	152	1349	166	1389	179	1428	193
72200	3523	1148	109	1172	115	1196	121	1219	128	1241	134	1285	148	1328	161	1369	175	1409	189	1448	203
75900	3704	1173	117	1195	123	1219	130	1242	136	1264	143	1307	157	1348	171	1390	185	1429	200	1468	214
79600	3884	1200	125	1222	132	1243	139	1265	145	1287	152	1330	167	1371	181	1410	195	1450	210		
83300	4065	1228	134	1249	141	1270	148	1290	155	1310	162	1353	177	1394	192	1433	207	1470	222		
87000	4245	1256	144	1277	151	1298	158	1317	165	1337	173	1376	188	1417	203	1456	218				
90700	4426	1285	154	1305	161	1326	169	1345	176	1365	184	1402	199	1440	215						
94400	4607	1315	164	1334	172	1354	180	1373	188	1392	195	1429	211	1465	227						
98100	4787	1345	175	1364	183	1383	191	1402	199	1421	208	1457	224								
101800	4968	1375	187	1394	195	1412	204	1431	212	1449	220										
105500	5148	1406	199	1424	208	1443	216	1461	225	1478	234										

Performance certified is for model AFDW Arrangement 3, Installation Type B: free inlet, ducted outlet.
Performance ratings do not include the effects of appurtenances (accessories).
Power rating (BHP) does not include transmission losses.



Class	Max RPM
I	901
II	1174
III	1479

% WOV = (CFM X 100) / (RPM X 95.6)

Sound Power [dB Ref 10^{-12} watts]

Inlet Sound Power, L_{Wi}										
RPM	%WOV	1	2	3	4	5	6	7	8	L_{Wi}A
300	100	87	86	85	81	78	72	66	61	83
	80	88	87	85	81	78	72	66	61	83
	60	88	87	84	81	78	72	66	61	83
	50	89	87	85	81	78	72	66	61	83
	40	92	89	86	81	78	72	67	62	84
400	100	90	86	85	82	79	73	63	60	84
	80	88	85	83	83	79	73	62	58	84
	60	86	84	83	82	79	73	63	58	83
	50	85	84	82	82	79	73	63	59	84
	40	86	84	83	83	79	73	63	59	84
600	100	102	99	93	88	86	80	73	70	91
	80	102	96	90	86	86	79	72	68	90
	60	97	94	88	86	86	79	72	69	90
	50	97	94	88	86	86	79	73	69	90
	40	97	94	88	87	86	80	74	70	90
800	100	101	107	99	94	93	86	82	79	98
	80	97	106	96	90	90	84	80	76	96
	60	95	101	92	88	90	83	81	77	94
	50	94	100	91	87	90	84	82	78	94
	40	95	103	91	87	90	84	82	79	94
1100	100	106	117	109	101	101	96	91	88	107
	80	102	116	106	98	97	91	88	85	104
	60	100	113	103	94	94	89	89	86	102
	50	100	111	101	93	94	90	89	87	100
	40	101	109	100	93	94	90	90	87	100
1479	100	111	119	123	111	107	105	99	95	116
	80	107	117	121	108	104	100	96	93	114
	60	105	115	118	104	101	98	95	94	111
	50	105	113	116	103	100	98	96	94	110
	40	106	113	114	102	100	98	96	95	109

Outlet Sound Power, L_{Wo}										
RPM	%WOV	1	2	3	4	5	6	7	8	L_{Wo}A
300	100	86	83	81	77	73	63	56	47	79
	80	86	83	81	77	73	64	56	47	79
	60	84	82	80	77	73	64	56	47	78
	50	84	81	80	76	73	64	56	48	78
	40	84	81	79	76	73	64	56	48	78
400	100	97	89	81	80	76	69	60	55	82
	80	96	87	80	79	75	69	59	54	81
	60	94	84	79	78	75	68	59	54	80
	50	93	83	78	78	75	68	59	54	79
	40	94	83	77	78	75	68	59	53	79
600	100	110	102	92	88	85	79	73	68	92
	80	106	101	89	86	82	78	71	65	90
	60	102	97	85	85	81	77	70	65	88
	50	101	97	85	85	81	77	70	65	88
	40	101	98	85	85	81	77	70	66	88
800	100	107	109	99	96	93	86	81	76	99
	80	101	106	94	91	89	82	78	74	95
	60	100	103	91	88	87	80	77	74	93
	50	99	103	90	87	87	80	77	74	92
	40	100	104	89	86	87	80	77	74	93
1100	100	112	116	108	105	101	96	90	85	107
	80	108	115	106	102	98	92	88	84	105
	60	105	114	101	98	94	88	86	83	102
	50	105	114	100	96	93	88	87	83	101
	40	104	112	99	96	93	88	87	84	100
1479	100	117	120	120	113	109	105	99	94	116
	80	113	118	120	110	106	101	96	92	114
	60	110	116	117	106	102	97	93	91	111
	50	110	116	117	104	101	96	94	91	111
	40	110	115	115	104	100	96	94	91	109

The sound power level ratings shown are in decibels, referred to 10^{-12} watts calculated per AMCA Standard 301. Values shown are for inlet L_{Wi}, L_{Wi}A and outlet L_{Wo}, L_{Wo}A sound power levels for Installation Type B: free inlet, ducted outlet. Outlet ratings include the effects of duct end correction. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.

49 AFDW

Wheel Diameter = 49 in.
Outlet Area = 24.85 ft.^{2}
Tip Speed = 12.83 x RPM
Maximum BHP = (RPM/204)^3

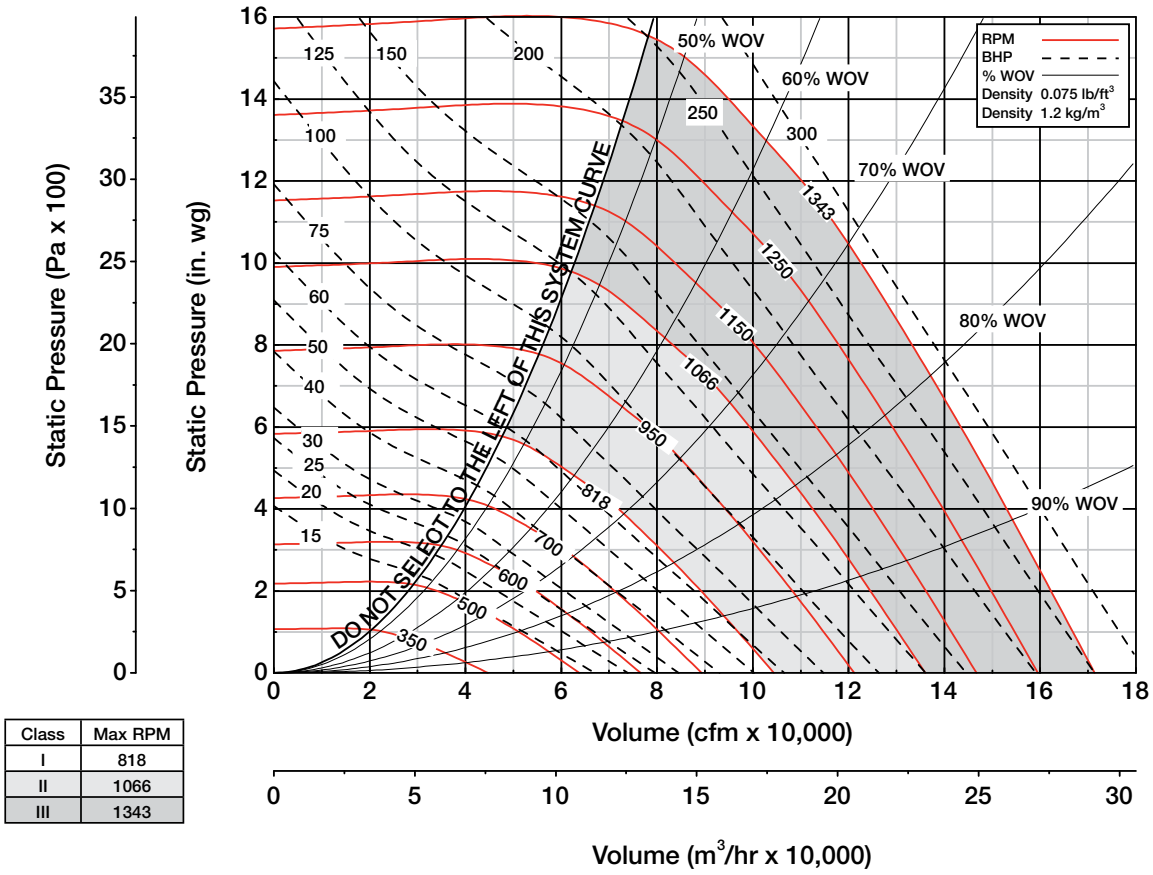
Minimum Starting HP = 15
Maximum RPM Class I = 818
Maximum RPM Class II = 1066
Maximum RPM Class III = 1343

CFM	OV	STATIC PRESSURE (in. wg)																			
		0.25		0.50		0.75		1.00		1.25		1.50		1.75		2.00		2.25		2.50	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
21000	845	221	1.28	267	2.18	307	3.17	344	4.29												
25400	1022	249	1.79	289	2.83	326	3.94	359	5.14	390	6.39	421	7.82								
29800	1199	277	2.44	314	3.64	347	4.88	378	6.20	407	7.57	435	9.01	460	10.5	487	12.2	513	14.0		
34200	1376	307	3.27	341	4.62	371	6.02	399	7.45	427	8.95	453	10.5	478	12.1	501	13.8	523	15.5	546	17.3
38600	1553	338	4.31	369	5.79	397	7.35	424	8.93	448	10.6	473	12.2	497	14.0	519	15.8	541	17.6	562	19.5
43000	1730	369	5.57	398	7.20	425	8.90	449	10.7	473	12.4	495	14.2	517	16.1	539	18.0	560	19.9	580	21.9
47400	1907	401	7.07	428	8.85	453	10.7	476	12.6	498	14.5	520	16.5	540	18.5	560	20.5	580	22.6	600	24.7
51800	2084	433	8.84	458	10.8	482	12.8	504	14.8	525	16.9	545	19.0	565	21.2	584	23.3	602	25.5	620	27.7
56200	2261	466	10.9	489	13.0	511	15.2	532	17.4	553	19.6	572	21.9	590	24.2	609	26.5	626	28.8	643	31.1
60600	2438	498	13.3	521	15.6	542	17.9	562	20.2	581	22.6	599	25.0	617	27.5	634	29.9	651	32.4	668	34.9
65000	2615	531	16.1	552	18.5	572	21.0	591	23.4	610	26.0	627	28.5	645	31.1	661	33.7	677	36.4	693	39.1
69400	2792	565	19.2	584	21.8	603	24.4	621	27.0	639	29.7	656	32.4	672	35.2	688	37.9	704	40.7	719	43.6
73800	2969	598	22.7	617	25.5	635	28.3	652	31.1	669	33.8	685	36.7	701	39.6	716	42.5	731	45.5	746	48.4
78200	3146	631	26.6	649	29.6	666	32.6	683	35.5	699	38.4	715	41.4	730	44.5	745	47.5	759	50.6	774	53.8
82600	3323	665	31.0	682	34.2	698	37.3	714	40.4	730	43.5	745	46.6	759	49.8	774	53.0	788	56.3	801	59.5
87000	3501	699	35.9	715	39.2	731	42.5	746	45.8	761	49.1	775	52.3	789	55.6	803	59.0	817	62.4	830	65.8

CFM	OV	STATIC PRESSURE (in. wg)																			
		2.50		3.00		3.50		4.00		4.50		5.00		5.50		6.00		6.50		7.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
40000	1609	568	20.2	606	24.1	645	28.5	685	33.2												
44000	1770	584	22.5	622	26.7	658	31.0	692	35.5	729	40.7										
48000	1931	602	25.1	639	29.4	674	34.0	707	38.7	739	43.5	772	48.8	805	54.4						
52000	2092	621	27.9	657	32.5	691	37.2	724	42.2	755	47.2	784	52.3	813	57.6	844	63.6	875	69.8		
56000	2253	642	31.0	676	35.8	709	40.8	740	45.9	771	51.2	801	56.6	829	62.0	855	67.6	882	73.5	912	80.0
60000	2414	664	34.4	696	39.4	728	44.6	759	50.0	788	55.4	817	61.0	845	66.8	872	72.6	897	78.5	922	84.5
64000	2575	687	38.1	718	43.4	747	48.8	777	54.4	807	60.1	834	65.9	861	71.8	888	77.9	913	84.0	938	90.3
68000	2736	711	42.1	741	47.7	769	53.3	796	59.1	825	65.0	853	71.1	879	77.2	904	83.4	930	89.9	954	96.4
72000	2897	735	46.4	764	52.3	792	58.2	819	64.2	844	70.3	871	76.6	897	83.0	923	89.5	947	96.0	971	103
76000	3058	760	51.0	788	57.2	815	63.5	841	69.7	866	76.1	890	82.5	916	89.2	941	95.9	965	103	988	110
80000	3219	785	56.1	812	62.5	838	69.1	864	75.6	889	82.2	913	88.9	935	95.7	960	103	984	110	1007	117
84000	3380	811	61.5	837	68.2	863	75.0	887	81.9	911	88.8	935	95.7	958	103	979	110	1003	117	1026	125
88000	3541	837	67.3	862	74.3	887	81.3	911	88.5	934	95.8	958	103	980	110	1002	118	1023	125	1044	133
92000	3702	863	73.5	888	80.8	912	88.1	936	95.6	958	103	981	111	1003	118	1024	126	1045	134	1065	141
96000	3863	890	80.2	914	87.7	937	95.4	961	103	983	111	1004	119	1026	127	1047	135	1067	142	1087	150
100000	4024	916	87.4	940	95.1	963	103	985	111	1007	119	1029	127	1049	135	1070	144	1090	152	1110	160

CFM	OV	STATIC PRESSURE (in. wg)																			
		7.00		7.50		8.00		8.50		9.00		10.00		11.00		12.00		13.00		14.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
60500	2434	924	85.2	949	91.4	976	98.4	1003	106	1028	113										
65000	2615	942	91.8	966	98.2	989	105	1012	111	1037	119	1086	134								
69500	2796	961	98.7	984	105	1007	112	1030	119	1051	126	1095	140	1142	157	1187	173				
74000	2977	979	106	1003	113	1026	120	1048	127	1070	134	1111	149	1151	164	1195	181	1238	198		
78500	3158	1000	114	1022	121	1044	128	1066	136	1088	143	1129	158	1169	174	1207	190	1247	206	1288	225
83000	3340	1021	123	1043	130	1065	138	1086	145	1107	153	1148	168	1187	184	1225	201	1262	217	1297	234
87500	3521	1042	132	1064	139	1086	147	1106	155	1127	163	1166	179	1206	195	1243	212	1280	229	1315	247
92000	3702	1065	141	1085	149	1107	157	1127	165	1148	174	1187	190	1224	207	1262	224	1298	242	1333	260
96500	3883	1090	152	1109	160	1128	168	1149	176	1169	185	1208	202	1245	219	1281	237	1316	255		
101000	4064	1115	163	1135	171	1153	179	1172	188	1190	197	1229	214	1266	232	1301	251	1335	269		
105500	4245	1141	174	1160	183	1179	192	1197	200	1214	209	1250	227	1287	246	1322	265				
110000	4426	1167	186	1186	195	1204	205	1222	214	1239	223	1273	241	1308	260						
114500	4607	1194	199	1212	209	1230	218	1247	227	1265	237	1298	256	1331	275						
119000	4788	1221	213	1239	223	1256	232	1273	242	1290	252	1324	272								
123500	4969	1249	227	1266	237	1283	247	1300	257	1316	267										
128000	5150	1277	242	1294	252	1311	263	1327	273												

Performance certified is for model AFDW Arrangement 3, Installation Type B: free inlet, ducted outlet.
Performance ratings do not include the effects of appurtenances (accessories).
Power rating (BHP) does not include transmission losses.



Class	Max RPM
I	818
II	1066
III	1343

% WOV = (CFM X 100) / (RPM X 128)

Sound Power [dB Ref 10^{-12} watts]

Inlet Sound Power, L_{Wi}										
RPM	%WOV	1	2	3	4	5	6	7	8	L_{Wi}A
250	100	86	85	84	79	76	69	64	59	81
	80	87	85	83	79	76	69	64	59	81
	60	88	85	82	79	76	69	64	59	81
	50	88	85	84	79	76	70	64	59	81
	40	91	86	84	79	76	70	64	59	82
350	100	90	86	84	82	78	71	63	59	83
	80	88	85	83	82	78	71	62	58	83
	60	86	84	83	82	78	71	62	58	83
	50	85	84	82	82	78	71	62	58	83
	40	86	84	83	82	78	71	63	59	83
500	100	102	96	91	86	84	77	71	68	89
	80	102	93	88	85	83	76	70	66	88
	60	98	91	86	85	84	76	70	67	87
	50	97	91	86	85	84	77	71	67	88
	40	97	91	87	86	84	77	72	68	88
700	100	102	105	98	94	92	85	81	78	97
	80	99	104	95	90	89	83	79	75	94
	60	96	100	91	88	89	83	80	77	93
	50	95	98	90	88	89	83	81	78	93
	40	96	100	90	88	89	83	81	78	93
1000	100	108	119	109	102	101	96	91	88	108
	80	105	117	106	98	97	91	89	86	105
	60	103	114	102	95	95	90	89	87	102
	50	102	112	101	94	94	90	90	88	101
	40	103	111	100	94	94	91	90	88	101
1343	100	112	122	121	111	108	105	100	96	116
	80	109	120	119	107	104	100	96	93	113
	60	107	117	116	104	102	98	96	94	110
	50	107	116	114	103	101	98	97	95	109
	40	108	115	113	102	101	98	97	95	109

Outlet Sound Power, L_{Wo}										
RPM	%WOV	1	2	3	4	5	6	7	8	L_{Wo}A
250	100	85	81	79	75	70	59	53	44	76
	80	85	81	79	75	70	60	53	44	76
	60	83	80	78	75	70	60	53	44	76
	50	83	79	78	74	71	60	53	45	76
	40	83	79	78	74	70	60	53	45	76
350	100	95	87	81	79	75	67	59	54	81
	80	95	85	80	78	74	67	58	53	80
	60	93	83	79	78	74	67	58	53	79
	50	91	82	78	77	74	67	58	53	79
	40	92	82	77	77	73	66	58	52	79
500	100	110	98	90	87	82	77	70	66	90
	80	106	96	87	84	80	75	68	62	88
	60	102	93	84	83	79	74	67	62	85
	50	101	93	83	83	79	74	68	63	85
	40	100	93	83	83	79	74	68	64	85
700	100	108	107	98	96	92	85	80	75	98
	80	102	103	93	91	88	82	77	73	94
	60	101	101	90	88	86	79	77	73	91
	50	100	101	89	87	86	79	77	73	91
	40	101	101	89	87	86	80	77	74	91
1000	100	113	117	108	105	102	97	91	86	108
	80	110	117	106	103	98	92	88	84	106
	60	107	115	102	98	94	89	86	83	103
	50	107	115	101	97	93	89	87	84	102
	40	106	113	100	96	93	89	87	84	101
1343	100	118	122	119	113	110	105	99	94	116
	80	114	120	118	111	106	101	96	92	114
	60	111	119	115	106	102	97	94	91	110
	50	111	118	115	105	101	97	94	92	110
	40	111	117	113	104	101	96	94	92	109

The sound power level ratings shown are in decibels, referred to 10^{-12} watts calculated per AMCA Standard 301. Values shown are for inlet L_{Wi}, L_{Wi}A and outlet L_{Wo}, L_{Wo}A sound power levels for Installation Type B: free inlet, ducted outlet. Outlet ratings include the effects of duct end correction. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.

54 AFDW

Wheel Diameter = 54¼ in.
Outlet Area = 30.46 ft.^{2}
Tip Speed = 14.20 x RPM
Maximum BHP = (RPM/172)^3

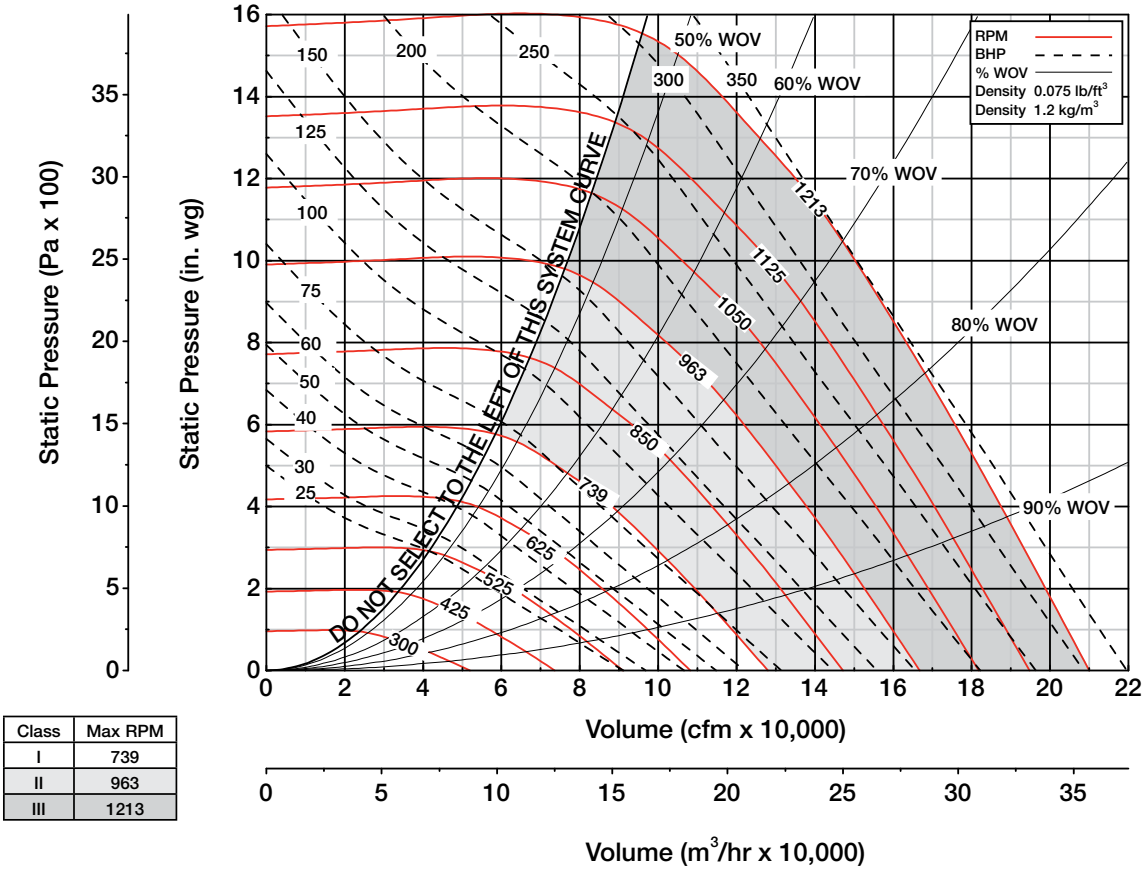
Minimum Starting HP = 25
Maximum RPM Class I = 739
Maximum RPM Class II = 963
Maximum RPM Class III = 1213

CFM	OV	STATIC PRESSURE (in. wg)																			
		0.25		0.50		0.75		1.00		1.25		1.50		1.75		2.00		2.25		2.50	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
27000	886	206	1.70	245	2.84	281	4.10	312	5.44												
32300	1060	230	2.35	266	3.67	298	5.07	328	6.56	355	8.13	382	9.83	409	11.8						
37600	1234	256	3.18	288	4.68	317	6.24	345	7.88	371	9.59	396	11.4	419	13.2	441	15.2	465	17.4		
42900	1408	282	4.22	312	5.90	339	7.65	364	9.44	389	11.3	412	13.2	434	15.3	456	17.3	475	19.4	495	21.6
48200	1582	310	5.51	337	7.37	363	9.30	386	11.3	408	13.3	430	15.4	452	17.5	472	19.7	491	22.0	510	24.3
53500	1756	337	7.08	363	9.10	387	11.2	409	13.4	430	15.6	450	17.8	470	20.1	490	22.5	508	24.9	526	27.3
58800	1930	366	8.93	390	11.1	412	13.4	433	15.8	453	18.2	472	20.6	491	23.0	508	25.5	526	28.1	544	30.7
64100	2104	394	11.1	417	13.5	438	16.0	458	18.5	477	21.1	495	23.7	513	26.3	530	29.0	546	31.7	562	34.5
69400	2278	423	13.6	445	16.3	464	18.9	483	21.6	501	24.3	519	27.1	535	30.0	552	32.8	568	35.7	583	38.6
74700	2452	453	16.6	472	19.4	491	22.2	509	25.1	527	28.0	543	31.0	559	34.0	575	37.0	590	40.1	605	43.2
80000	2626	482	19.9	501	22.9	519	25.9	536	29.0	552	32.1	568	35.2	584	38.4	599	41.6	613	44.9	627	48.2
85300	2800	511	23.7	529	26.9	546	30.1	562	33.3	578	36.6	594	39.9	608	43.3	623	46.7	637	50.2	651	53.6
90600	2974	541	27.9	558	31.4	574	34.8	590	38.2	605	41.6	620	45.1	634	48.7	648	52.3	661	55.9	675	59.5
95900	3148	571	32.7	587	36.3	602	40.0	617	43.6	632	47.2	646	50.8	660	54.6	673	58.3	686	62.1	699	66.0
101200	3322	600	38.0	616	41.8	631	45.7	645	49.5	659	53.3	672	57.1	686	61.0	699	64.9	711	68.9	724	72.9
106500	3496	630	43.9	645	47.9	659	51.9	673	56.0	686	59.9	699	63.9	712	68.0	725	72.1	737	76.3	749	80.5

CFM	OV	STATIC PRESSURE (in. wg)																			
		2.50		3.00		3.50		4.00		4.50		5.00		5.50		6.00		6.50		7.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
51000	1674	519	25.9	553	30.8	586	35.9	621	41.8												
55800	1831	534	28.8	568	34.0	600	39.4	630	44.9	661	51.0	693	57.6								
60600	1989	550	31.9	583	37.4	614	43.1	644	48.9	672	54.9	699	61.0	730	68.1	758	75.3				
65400	2147	567	35.4	599	41.2	630	47.1	659	53.2	687	59.5	713	65.8	739	72.4	765	79.4	792	87.0	819	94.8
70200	2304	586	39.3	616	45.3	646	51.5	674	57.8	701	64.3	728	71.0	753	77.8	777	84.8	800	91.8	826	99.6
75000	2462	606	43.4	634	49.7	663	56.2	690	62.8	717	69.6	742	76.5	767	83.6	791	90.9	815	98.2	837	106
79800	2619	626	48.0	654	54.6	680	61.3	707	68.2	733	75.3	758	82.5	782	89.8	806	97.3	829	105	851	113
84600	2777	647	52.9	674	59.8	700	66.9	724	74.0	750	81.4	774	88.9	798	96.4	821	104	844	112	866	120
89400	2934	669	58.2	695	65.5	720	72.8	744	80.3	767	87.8	791	95.6	815	104	837	112	859	120	880	128
94200	3092	691	63.8	716	71.5	740	79.2	764	87.0	787	94.8	808	103	831	111	854	119	875	128	896	136
99000	3250	713	70.0	738	77.9	761	86.0	784	94.1	807	102	828	111	849	119	870	128	892	136	913	145
103800	3407	736	76.6	760	84.8	783	93.2	805	102	827	110	848	119	868	128	888	136	909	145	929	154
108600	3565	759	83.6	782	92.2	805	101	826	110	847	119	868	128	888	137	908	146	927	155	946	164
113400	3722	783	91.2	805	100	827	109	848	118	868	128	888	137	908	146	928	156	946	165	965	175
118200	3880	806	99.2	828	109	849	118	870	127	890	137	909	147	929	156	948	166	966	176	984	186
123000	4038	830	108	851	117	872	127	892	137	912	147	931	157	950	167	968	177	986	187	1004	197

CFM	OV	STATIC PRESSURE (in. wg)																			
		7.00		7.50		8.00		8.50		9.00		10.00		11.00		12.00		13.00		14.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
73000	2396	831	103	855	111	880	119	904	128	927	137										
78600	2580	848	111	869	119	890	126	912	135	935	144	980	162								
84200	2764	865	119	886	128	907	136	927	144	947	152	987	170	1030	190						
89800	2948	882	129	903	137	924	146	944	154	963	163	1001	181	1038	199	1078	220	1117	241		
95400	3131	900	138	921	147	941	156	961	165	980	174	1018	192	1053	211	1088	230	1125	252	1162	274
101000	3315	920	149	940	158	959	167	978	176	997	186	1035	205	1070	224	1104	244	1137	264	1170	285
106600	3499	939	160	959	169	978	179	997	188	1016	198	1052	218	1087	238	1121	258	1154	279	1186	300
112200	3683	960	172	978	182	998	191	1016	201	1035	211	1070	232	1104	252	1138	273	1171	295	1202	317
117800	3867	983	185	1000	195	1017	205	1036	215	1054	225	1089	246	1123	268	1155	289	1188	311		
123400	4051	1006	198	1023	209	1040	219	1057	229	1074	240	1108	262	1142	284	1174	306	1205	328		
129000	4235	1029	213	1046	223	1063	234	1080	245	1095	256	1128	278	1161	301	1193	324				
134600	4418	1053	228	1070	239	1086	250	1103	261	1118	272	1149	295	1181	318	1212	342				
140200	4602	1078	244	1094	255	1110	267	1126	278	1142	290	1172	313	1201	337						
145800	4786	1103	261	1119	272	1134	284	1150	296	1165	308	1195	333								
151400	4970	1128	278	1144	291	1159	303	1174	315	1189	328										
157000	5154	1154	297	1169	310	1184	322	1199	335												

Performance certified is for model AFDW Arrangement 3, Installation Type B: free inlet, ducted outlet.
Performance ratings do not include the effects of appurtenances (accessories).
Power rating (BHP) does not include transmission losses.



Class	Max RPM
I	739
II	963
III	1213

% WOV = (CFM X 100) / (RPM X 173)

Sound Power [dB Ref 10^{-12} watts]

Inlet Sound Power, L_{Wi}										
RPM	%WOV	1	2	3	4	5	6	7	8	L_{Wi}A
250	100	90	88	87	83	79	73	67	62	85
	80	91	88	86	82	79	73	67	62	84
	60	91	89	85	82	79	73	67	62	84
	50	91	88	87	82	79	73	67	62	85
	40	94	90	87	82	79	73	67	62	85
350	100	93	89	87	85	81	74	66	62	86
	80	91	88	86	85	81	74	65	61	86
	60	89	87	86	85	81	74	65	61	86
	50	89	87	85	85	81	74	65	62	86
	40	89	87	86	85	81	74	66	62	86
450	100	104	96	91	87	84	77	72	68	89
	80	103	93	88	86	83	76	70	66	88
	60	99	91	87	86	83	76	71	67	88
	50	99	91	87	86	83	77	71	68	88
	40	98	91	87	86	84	77	72	69	88
650	100	104	106	99	95	92	86	82	79	98
	80	101	104	96	92	90	84	80	76	95
	60	99	100	92	90	89	84	81	78	94
	50	98	99	91	90	89	85	82	79	94
	40	99	101	91	90	90	85	82	79	94
900	100	111	120	108	103	101	96	92	88	108
	80	108	119	105	99	97	92	89	86	106
	60	106	116	102	96	95	91	90	87	103
	50	105	114	100	95	94	91	90	88	102
	40	105	112	99	95	94	92	91	88	101
1213	100	114	124	119	111	109	105	100	96	116
	80	110	122	117	107	105	100	97	94	113
	60	108	120	114	104	103	98	97	95	110
	50	108	118	112	102	102	98	97	95	109
	40	109	117	111	102	102	99	98	96	109

Outlet Sound Power, L_{Wo}										
RPM	%WOV	1	2	3	4	5	6	7	8	L_{Wo}A
250	100	88	84	82	78	73	63	56	47	79
	80	88	84	82	78	74	63	56	47	80
	60	86	83	81	78	74	63	56	47	79
	50	86	82	81	78	74	63	56	48	79
	40	86	82	81	77	74	63	56	48	79
350	100	99	90	84	83	78	71	62	57	84
	80	98	88	83	81	77	70	61	56	83
	60	96	86	82	81	77	70	61	56	82
	50	94	85	81	81	77	70	61	56	82
	40	95	85	80	80	77	70	61	55	82
450	100	111	98	90	87	82	76	71	66	90
	80	107	95	87	85	80	75	68	62	88
	60	103	92	85	83	79	74	67	62	86
	50	102	92	84	83	79	74	68	63	85
	40	102	92	84	83	79	74	68	64	85
650	100	109	107	99	97	92	86	81	76	99
	80	104	103	95	92	89	83	78	74	95
	60	103	101	92	90	86	80	78	74	92
	50	102	101	90	89	86	81	78	74	92
	40	103	101	90	88	86	81	78	75	92
900	100	114	118	108	106	102	96	91	86	108
	80	112	118	107	103	98	93	88	84	106
	60	109	116	102	98	94	89	87	83	103
	50	109	116	101	97	93	89	87	84	103
	40	108	114	100	96	93	89	88	84	102
1213	100	119	123	118	114	110	105	99	94	116
	80	115	122	116	111	107	101	96	92	114
	60	113	121	113	106	102	97	95	91	110
	50	112	121	112	105	101	97	95	92	110
	40	112	119	110	104	101	97	95	92	109

The sound power level ratings shown are in decibels, referred to 10^{-12} watts calculated per AMCA Standard 301. Values shown are for inlet L_{Wi}, L_{Wi}A and outlet L_{Wo}, L_{Wo}A sound power levels for Installation Type B: free inlet, ducted outlet. Outlet ratings include the effects of duct end correction. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.

60 AFDW

Wheel Diameter = 60 in.
Outlet Area = 37.26 ft.^{2}
Tip Speed = 15.71 x RPM
Maximum BHP = (RPM/146)^3

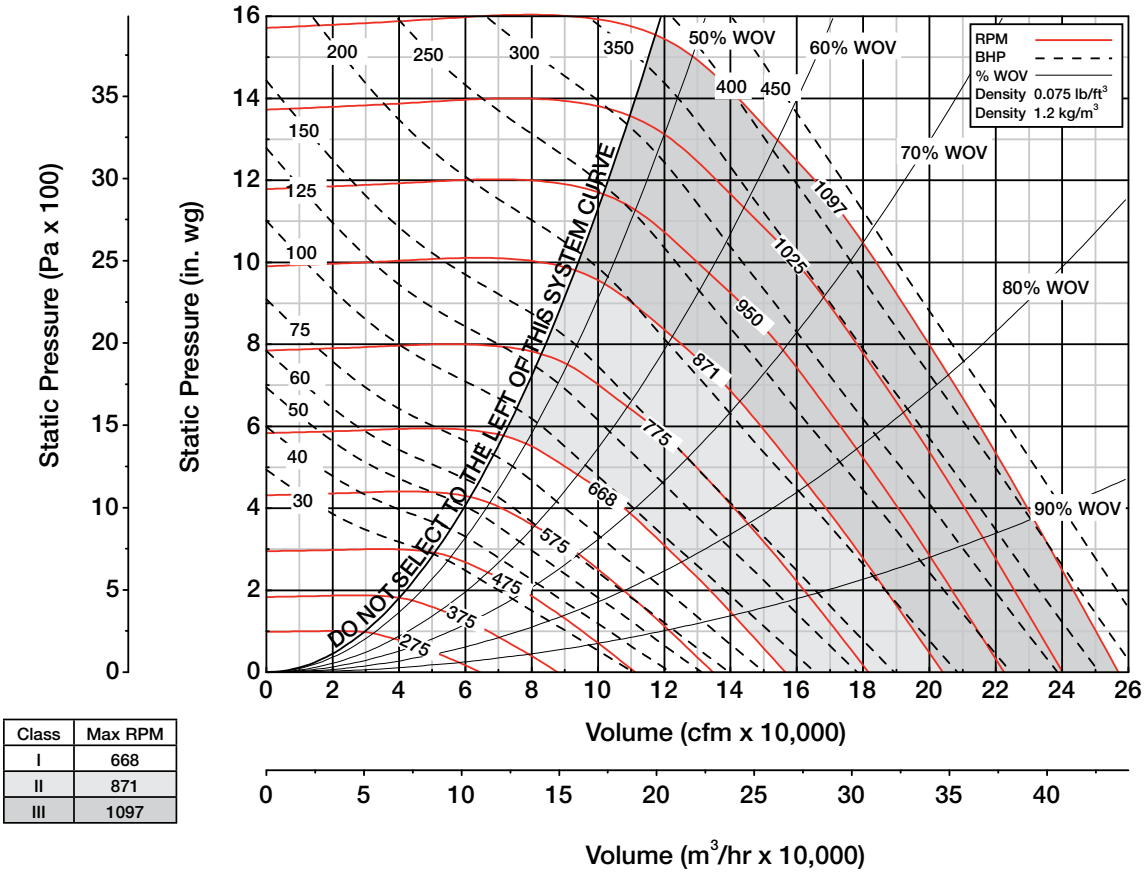
Minimum Starting HP = 30
Maximum RPM Class I = 668
Maximum RPM Class II = 871
Maximum RPM Class III = 1097

CFM	OV	STATIC PRESSURE (in. wg)																			
		0.25		0.50		0.75		1.00		1.25		1.50		1.75		2.00		2.25		2.50	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
30000	805	176	1.77	214	3.08	247	4.53	279	6.23												
36400	976	197	2.46	231	3.97	262	5.60	290	7.34	315	9.21										
42800	1148	220	3.36	250	5.09	278	6.89	304	8.81	328	10.8	351	12.9	373	15.2	396	17.7				
49200	1320	243	4.48	271	6.43	297	8.45	320	10.5	343	12.7	365	15.0	385	17.4	405	19.8	424	22.4	444	25.3
55600	1492	267	5.88	293	8.04	317	10.3	339	12.6	360	15.0	381	17.4	400	19.9	419	22.6	437	25.3	454	28.0
62000	1663	292	7.60	316	9.96	338	12.4	359	15.0	378	17.5	397	20.1	416	22.9	434	25.7	451	28.5	468	31.4
68400	1835	317	9.64	339	12.2	360	14.9	380	17.7	398	20.5	416	23.3	433	26.2	450	29.1	467	32.2	483	35.3
74800	2007	342	12.0	363	14.9	383	17.8	402	20.7	419	23.7	436	26.8	452	29.9	468	33.0	483	36.2	499	39.5
81200	2179	368	14.9	388	17.9	406	21.0	424	24.2	441	27.4	457	30.7	472	34.1	487	37.4	502	40.8	516	44.2
87600	2351	394	18.1	412	21.4	430	24.7	447	28.1	463	31.6	478	35.1	493	38.6	507	42.2	522	45.8	535	49.5
94000	2522	420	21.8	437	25.4	454	28.9	470	32.5	485	36.2	500	39.9	515	43.7	528	47.5	542	51.4	555	55.2
100400	2694	446	26.1	463	29.9	478	33.7	494	37.4	508	41.3	523	45.3	536	49.3	550	53.3	563	57.4	575	61.5
106800	2866	472	30.9	488	34.9	503	39.0	518	42.9	532	47.0	546	51.2	559	55.4	572	59.7	584	63.9	596	68.3
113200	3038	499	36.2	514	40.5	528	44.8	542	49.0	555	53.3	569	57.7	582	62.1	594	66.6	606	71.1	618	75.6
119600	3209	525	42.2	540	46.7	553	51.3	567	55.8	580	60.2	592	64.8	605	69.4	617	74.1	628	78.9	640	83.6
126000	3381	552	48.8	566	53.6	579	58.4	592	63.2	604	67.8	616	72.6	628	77.4	640	82.3	651	87.3	662	92.3

CFM	OV	STATIC PRESSURE (in. wg)																			
		2.50		3.00		3.50		4.00		4.50		5.00		5.50		6.00		6.50		7.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
63000	1690	470	32.0	502	38.1	531	44.4	562	51.5												
68800	1846	484	35.5	515	41.9	544	48.6	571	55.4	598	62.8	627	70.9								
74600	2002	499	39.4	528	46.1	557	53.1	584	60.2	609	67.6	633	75.1	660	83.7	686	92.5				
80400	2157	513	43.6	543	50.7	570	58.0	596	65.4	622	73.1	646	81.0	669	89.0	692	97.4	717	107	741	116
86200	2313	531	48.3	558	55.7	585	63.3	610	71.1	635	79.1	659	87.3	681	95.6	703	104	724	113	747	122
92000	2469	549	53.4	574	61.1	600	69.0	625	77.2	649	85.4	672	93.9	694	103	716	112	737	121	757	130
97800	2624	567	58.9	592	67.0	616	75.2	640	83.7	663	92.3	686	101	707	110	729	119	750	129	770	138
103600	2780	586	64.8	610	73.3	633	81.9	655	90.6	678	99.6	700	109	722	118	743	128	763	137	783	147
109400	2936	605	71.2	628	80.2	651	89.1	673	98.2	694	108	715	117	737	127	757	137	777	146	796	157
115200	3091	625	78.1	647	87.4	669	96.9	691	106	711	116	731	126	751	136	772	146	791	156	810	167
121000	3247	645	85.5	667	95.2	688	105	709	115	729	125	748	135	767	145	787	156	806	167	825	177
126800	3403	665	93.4	686	104	707	114	727	124	747	135	766	145	785	156	802	166	821	177	840	189
132600	3558	685	102	706	112	727	123	746	134	765	145	784	156	802	167	820	178	837	189	855	200
138400	3714	706	111	727	122	746	133	766	144	784	155	802	167	820	178	838	190	855	201	871	213
144200	3870	727	121	747	132	766	143	785	155	803	167	821	179	838	190	856	202	872	214	889	226
150000	4025	748	131	768	143	787	155	805	167	823	179	840	191	857	203	874	215	890	228	906	240

CFM	OV	STATIC PRESSURE (in. wg)																			
		7.00		7.50		8.00		8.50		9.00		10.00		11.00		12.00		13.00		14.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
90000	2415	753	127	774	136	796	147	818	157	839	168										
96800	2597	768	137	787	146	806	156	825	166	846	177	886	200								
103600	2780	783	147	802	157	821	167	839	177	857	188	893	209	932	234	969	258				
110400	2962	798	158	818	169	836	179	855	190	872	200	906	222	939	244	975	270	1011	296		
117200	3145	815	170	834	181	852	192	870	203	887	214	921	237	954	260	985	283	1018	309	1052	336
124000	3327	832	183	851	194	868	205	886	217	903	228	936	252	969	275	1000	300	1029	324	1059	350
130800	3510	850	197	868	208	886	220	903	231	919	243	952	267	984	292	1015	317	1044	343	1073	369
137600	3692	869	211	885	223	903	235	920	247	936	259	968	284	999	309	1030	335	1059	362	1088	389
144400	3875	889	227	905	239	920	251	937	264	954	276	985	302	1016	328	1045	355	1074	382		
151200	4057	910	243	926	256	941	268	956	281	971	294	1003	321	1033	348	1062	375	1090	403		
158000	4240	931	261	947	274	962	287	977	300	991	313	1020	341	1050	368	1079	397				
164800	4422	952	279	968	293	983	306	997	320	1012	334	1039	361	1068	390	1096	419				
171600	4605	975	299	989	313	1004	327	1018	341	1032	355	1060	384	1086	413						
178400	4787	997	319	1012	334	1025	348	1040	363	1054	377	1081	407								
185200	4970	1020	340	1034	355	1048	371	1061	386	1075	401										
192000	5152	1043	363	1057	379	1070	394	1084	410												

Performance certified is for model AFDW Arrangement 3, Installation Type B: free inlet, ducted outlet.
Performance ratings do not include the effects of appurtenances (accessories).
Power rating (BHP) does not include transmission losses.



Class	Max RPM
I	668
II	871
III	1097

% WOV = (CFM X 100) / (RPM X 234)

Sound Power [dB Ref 10^{-12} watts]

RPM	%WOV	Inlet Sound Power, L_{Wi} 1	2	3	4	5	6	7	8	L_{Wi}A
200	100	87	86	83	80	75	69	63	58	81
	80	88	86	83	80	75	69	64	58	81
	60	88	86	83	80	75	69	64	59	81
	50	88	86	83	80	75	69	64	58	81
	40	91	87	84	80	75	69	64	59	82
300	100	92	89	86	84	79	72	65	61	85
	80	90	88	86	84	79	71	63	59	85
	60	88	87	86	84	79	72	64	59	85
	50	88	86	85	84	79	72	64	60	85
	40	88	87	85	84	80	72	65	61	85
400	100	104	96	90	87	83	76	72	68	89
	80	103	93	88	86	83	75	70	66	88
	60	99	91	87	86	83	76	70	67	88
	50	99	91	87	86	83	76	71	68	88
	40	99	91	88	87	83	76	72	69	88
550	100	105	104	97	94	90	85	81	78	96
	80	103	101	93	92	87	83	79	75	94
	60	100	98	90	90	87	83	80	77	93
	50	99	96	90	90	87	84	81	78	93
	40	101	97	89	90	87	84	81	78	93
800	100	113	120	108	103	101	96	91	88	108
	80	111	118	104	99	96	92	89	86	105
	60	108	116	101	97	94	91	90	87	103
	50	107	114	99	96	94	92	90	88	102
	40	107	112	99	95	94	92	91	89	101
1097	100	116	127	118	110	110	105	100	97	116
	80	112	125	115	107	106	100	97	94	113
	60	110	122	112	103	103	98	98	95	111
	50	110	120	110	102	103	99	98	96	110
	40	111	119	109	102	103	99	99	96	109

RPM	%WOV	Outlet Sound Power, L_{Wo} 1	2	3	4	5	6	7	8	L_{Wo}A
200	100	85	82	79	75	68	59	51	43	76
	80	85	82	79	75	68	59	51	42	76
	60	83	81	78	75	68	59	51	42	76
	50	83	80	78	75	68	59	52	43	76
	40	83	80	78	75	68	59	52	43	75
300	100	96	88	84	81	76	68	61	56	83
	80	95	87	82	80	75	68	60	54	81
	60	93	85	81	80	75	67	60	55	81
	50	92	84	81	80	75	67	60	55	80
	40	92	84	80	79	75	67	59	54	80
400	100	110	96	90	87	82	76	70	66	90
	80	107	94	87	84	80	74	68	62	87
	60	103	91	85	83	79	73	67	62	85
	50	102	90	85	83	79	73	68	63	85
	40	102	91	85	83	79	73	68	64	85
550	100	109	104	98	95	90	84	79	75	97
	80	105	100	93	92	86	81	77	72	93
	60	103	97	90	89	84	79	76	73	91
	50	103	97	89	88	84	80	76	73	90
	40	104	96	88	88	84	80	77	74	90
800	100	116	118	109	106	101	96	90	85	108
	80	113	118	106	103	97	92	88	84	106
	60	111	116	102	98	93	89	87	83	103
	50	111	116	101	97	93	89	87	84	103
	40	110	114	100	96	93	90	88	84	101
1097	100	121	125	117	114	110	105	99	94	116
	80	117	124	115	111	107	101	97	93	114
	60	114	123	110	107	103	97	95	92	111
	50	114	123	109	105	102	97	96	92	110
	40	114	121	108	105	102	97	96	93	109

The sound power level ratings shown are in decibels, referred to 10^{-12} watts calculated per AMCA Standard 301. Values shown are for inlet L_{Wi}, L_{Wi}A and outlet L_{Wo}, L_{Wo}A sound power levels for Installation Type B: free inlet, ducted outlet. Outlet ratings include the effects of duct end correction. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.

66 AFDW

Wheel Diameter = 66 in.
Outlet Area = 45.08 ft.^{2}
Tip Speed = 17.28 x RPM
Maximum BHP = (RPM/2124)^3

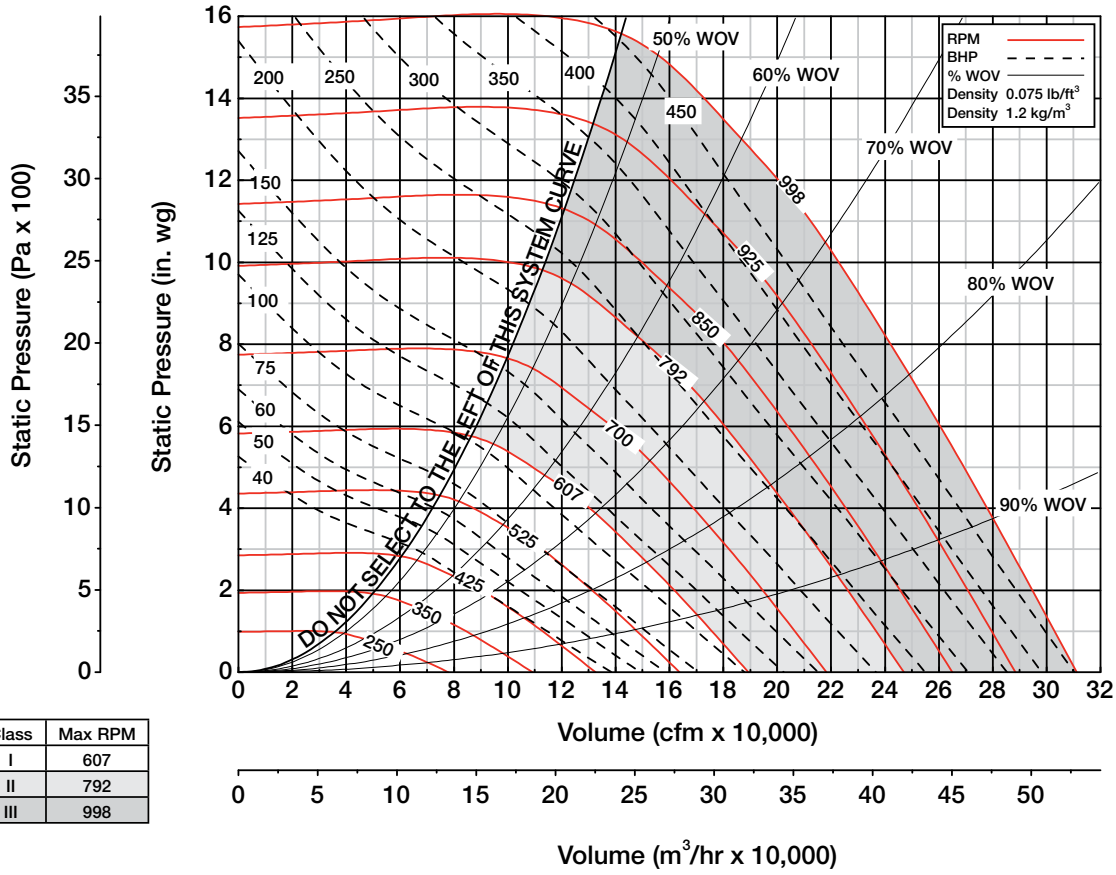
Minimum Starting HP = 40
Maximum RPM Class I = 607
Maximum RPM Class II = 792
Maximum RPM Class III = 998

CFM	OV	STATIC PRESSURE (in. wg)																			
		0.25		0.50		0.75		1.00		1.25		1.50		1.75		2.00		2.25		2.50	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
41000	909	171	2.63	204	4.35	233	6.24	258	8.25	284	10.6										
48700	1080	191	3.60	220	5.58	247	7.68	271	9.91	293	12.3	314	14.8	337	17.6						
56400	1251	212	4.83	239	7.09	262	9.42	285	11.9	306	14.4	326	17.1	345	19.9	363	22.8	383	26.1		
64100	1421	234	6.38	258	8.89	280	11.5	301	14.2	321	17.0	340	19.8	358	22.8	375	25.9	392	29.0	407	32.2
71800	1592	256	8.28	279	11.0	299	13.9	319	16.9	337	19.9	355	23.0	372	26.2	388	29.4	405	32.8	420	36.3
79500	1763	278	10.6	299	13.6	319	16.7	337	19.9	354	23.2	371	26.5	387	29.9	403	33.4	418	37.0	433	40.6
87200	1934	301	13.3	321	16.6	339	20.0	357	23.4	373	27.0	389	30.6	404	34.2	418	37.9	433	41.7	447	45.6
94900	2105	324	16.4	343	20.0	360	23.7	376	27.4	392	31.2	407	35.1	421	39.0	435	42.9	449	46.9	462	51.0
102600	2275	348	20.1	365	24.0	381	27.9	397	31.9	412	36.0	426	40.1	440	44.3	453	48.5	466	52.7	479	57.0
110300	2446	371	24.4	387	28.6	403	32.7	418	36.9	432	41.3	446	45.6	459	50.1	472	54.6	484	59.1	496	63.7
118000	2617	395	29.2	410	33.7	425	38.1	439	42.6	453	47.1	466	51.8	479	56.5	491	61.3	503	66.1	514	70.9
125700	2788	418	34.6	433	39.4	447	44.1	461	48.9	474	53.7	486	58.6	498	63.6	510	68.6	522	73.7	533	78.8
133400	2959	442	40.8	456	45.8	470	50.9	483	55.9	495	60.9	507	66.1	519	71.3	530	76.6	542	81.9	553	87.3
141100	3129	466	47.6	480	52.9	492	58.3	505	63.6	517	68.9	528	74.3	540	79.8	551	85.3	562	91.0	572	96.6
148800	3300	490	55.2	503	60.8	515	66.5	527	72.1	539	77.6	550	83.3	561	89.0	572	94.8	582	101	592	107
156500	3471	514	63.6	526	69.5	538	75.4	550	81.4	561	87.2	571	93.1	582	99.0	592	105	603	111	613	117

CFM	OV	STATIC PRESSURE (in. wg)																			
		2.50		3.00		3.50		4.00		4.50		5.00		5.50		6.00		6.50		7.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
75000	1663	425	38.0	454	45.3	481	52.9	510	61.6												
82000	1818	437	42.2	466	49.9	492	57.8	517	66.0	543	75.1	569	84.9								
89000	1974	451	46.8	478	54.8	504	63.2	528	71.8	551	80.6	574	89.8	599	100	623	111				
96000	2129	464	51.8	491	60.3	516	69.0	540	78.0	563	87.2	585	96.6	606	106	628	117	651	128	672	140
103000	2284	480	57.4	504	66.2	529	75.3	552	84.7	575	94.3	596	104	617	114	637	124	656	135	678	147
110000	2440	496	63.4	519	72.6	542	82.2	565	91.9	587	102	608	112	629	123	649	133	668	144	686	155
117000	2595	512	70.0	535	79.6	557	89.5	579	99.7	600	110	621	121	641	131	660	143	679	154	698	165
124000	2750	529	77.0	551	87.2	572	97.5	593	108	614	119	634	130	654	141	672	152	691	164	709	176
131000	2905	547	84.6	568	95.3	589	106	608	117	627	128	648	140	667	151	686	163	703	175	721	187
138000	3061	564	92.8	585	104	605	115	625	127	643	138	661	150	680	162	699	174	717	187	734	199
145000	3216	582	102	603	113	622	125	641	137	659	149	677	161	694	173	712	186	730	199	747	212
152000	3371	601	111	620	123	639	135	657	148	676	160	693	173	710	186	726	199	743	212	761	225
159000	3527	619	121	638	134	657	147	675	159	692	173	709	186	726	199	742	212	758	226	774	239
166000	3682	638	132	657	145	675	158	692	172	709	185	726	199	742	213	758	226	774	240	789	254
173000	3837	657	144	675	157	693	171	710	185	727	199	743	213	759	227	774	241	790	256	804	270
180000	3992	676	156	694	170	711	184	728	199	744	213	760	228	775	242	791	257	806	272	820	287

CFM	OV	STATIC PRESSURE (in. wg)																			
		7.00		7.50		8.00		8.50		9.00		10.00		11.00		12.00		13.00		14.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
109000	2417	685	153	703	165	724	178	744	191	763	204										
117200	2599	698	165	716	177	733	189	750	201	769	214	806	242								
125400	2781	712	178	729	190	747	202	763	215	779	227	812	253	847	283	880	313				
133600	2963	726	191	743	204	760	217	777	230	793	242	824	269	853	296	887	327	919	358		
141800	3145	741	206	758	219	774	232	791	245	807	259	837	286	867	314	895	342	925	373	956	407
150000	3327	757	221	773	235	789	248	805	262	820	276	851	304	880	333	908	362	936	392	962	423
158200	3509	772	238	789	252	805	266	820	280	835	294	865	323	894	353	922	384	949	414	975	446
166400	3691	789	255	805	270	821	284	836	299	851	314	880	344	908	374	936	406	963	437	989	470
174600	3873	808	274	822	289	837	304	852	319	867	334	896	365	923	397	950	429	976	462		
182800	4055	827	294	841	309	855	325	869	340	883	356	911	388	939	420	965	453	990	487		
191000	4236	846	315	860	331	874	347	887	363	900	379	927	412	954	445	981	479				
199200	4418	865	337	879	354	893	370	906	387	919	403	944	437	970	471	996	506				
207400	4600	885	361	899	378	912	395	925	412	938	429	963	464	987	499						
215600	4782	906	385	919	403	931	421	944	438	957	456	982	492								
223800	4964	927	411	939	429	952	447	964	466	976	484										
232000	5146	947	438	960	457	972	476	984	495	996	514										

Performance certified is for model AFDW Arrangement 3, Installation Type B: free inlet, ducted outlet.
Performance ratings do not include the effects of appurtenances (accessories).
Power rating (BHP) does not include transmission losses.



Class	Max RPM
I	607
II	792
III	998

% WOV = (CFM X 100) / (RPM X 312)

Sound Power [dB Ref 10^{-12} watts]

RPM	%WOV	Inlet Sound Power, L_{Wi} 1	2	3	4	5	6	7	8	L_{Wi}A
200	100	90	89	86	83	78	72	66	61	84
	80	91	89	86	83	78	72	66	61	84
	60	91	89	85	82	78	72	67	62	84
	50	92	89	86	83	78	72	66	61	84
	40	94	90	86	83	78	72	67	62	84
300	100	95	92	89	87	82	75	68	64	88
	80	93	90	89	87	82	74	66	62	88
	60	91	90	88	87	82	75	67	62	87
	50	91	89	88	87	82	75	67	63	88
	40	91	90	88	87	82	75	67	64	88
400	100	107	99	93	90	86	79	74	71	92
	80	106	96	91	89	85	78	73	69	91
	60	102	94	90	89	85	78	73	70	91
	50	102	94	90	89	85	79	74	71	91
	40	102	94	91	90	86	79	75	72	91
500	100	107	104	97	95	90	85	81	78	97
	80	105	101	93	92	87	83	79	75	94
	60	102	97	90	92	87	83	80	77	93
	50	101	96	90	91	87	84	81	78	93
	40	103	96	89	92	87	84	82	79	93
700	100	116	117	106	103	100	95	91	88	107
	80	113	115	103	99	95	91	88	85	103
	60	111	112	99	97	93	91	89	87	101
	50	109	110	98	96	93	92	90	88	100
	40	109	109	97	96	93	92	90	88	100
998	100	118	128	118	111	110	105	100	97	117
	80	115	126	115	107	106	100	98	95	114
	60	113	124	111	104	104	99	98	96	112
	50	112	122	110	103	103	99	99	97	110
	40	113	120	109	103	103	100	99	97	110

RPM	%WOV	Outlet Sound Power, L_{Wo} 1	2	3	4	5	6	7	8	L_{Wo}A
200	100	88	85	82	78	71	62	54	46	79
	80	88	85	82	78	71	62	54	45	79
	60	86	84	81	78	71	62	54	45	79
	50	86	83	81	78	71	62	55	46	78
	40	86	83	81	77	71	62	55	46	78
300	100	99	91	86	84	79	71	64	59	85
	80	98	90	85	83	78	70	63	57	84
	60	96	88	84	83	78	70	62	58	84
	50	95	86	84	82	78	70	63	58	83
	40	95	86	83	82	78	70	62	57	83
400	100	113	99	93	90	85	79	73	69	93
	80	110	97	90	87	83	77	70	65	90
	60	106	93	88	86	82	76	70	65	88
	50	105	93	88	86	82	76	71	66	88
	40	105	94	88	86	82	76	71	67	88
500	100	110	103	99	96	90	84	79	75	97
	80	107	99	94	92	86	81	77	73	93
	60	105	96	91	90	84	80	77	73	91
	50	105	95	89	89	84	80	77	73	91
	40	105	95	89	89	84	80	77	74	91
700	100	116	115	108	105	100	95	89	84	107
	80	115	114	106	102	96	91	87	83	104
	60	113	111	101	97	92	89	86	83	101
	50	113	111	100	96	92	89	87	84	100
	40	111	109	99	96	92	89	87	84	100
998	100	122	126	117	114	111	106	100	95	117
	80	119	126	115	112	107	101	97	93	115
	60	116	124	111	107	103	98	95	92	112
	50	116	124	110	106	102	98	96	93	111
	40	115	122	109	105	102	98	96	93	110

The sound power level ratings shown are in decibels, referred to 10^{-12} watts calculated per AMCA Standard 301. Values shown are for inlet L_{Wi}, L_{Wi}A and outlet L_{Wo}, L_{Wo}A sound power levels for Installation Type B: free inlet, ducted outlet. Outlet ratings include the effects of duct end correction. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.

73 AFDW

Wheel Diameter = 73 in.
Outlet Area = 55.15 ft.^{2}
Tip Speed = 19.11 x RPM
Maximum BHP = (RPM/105)^3

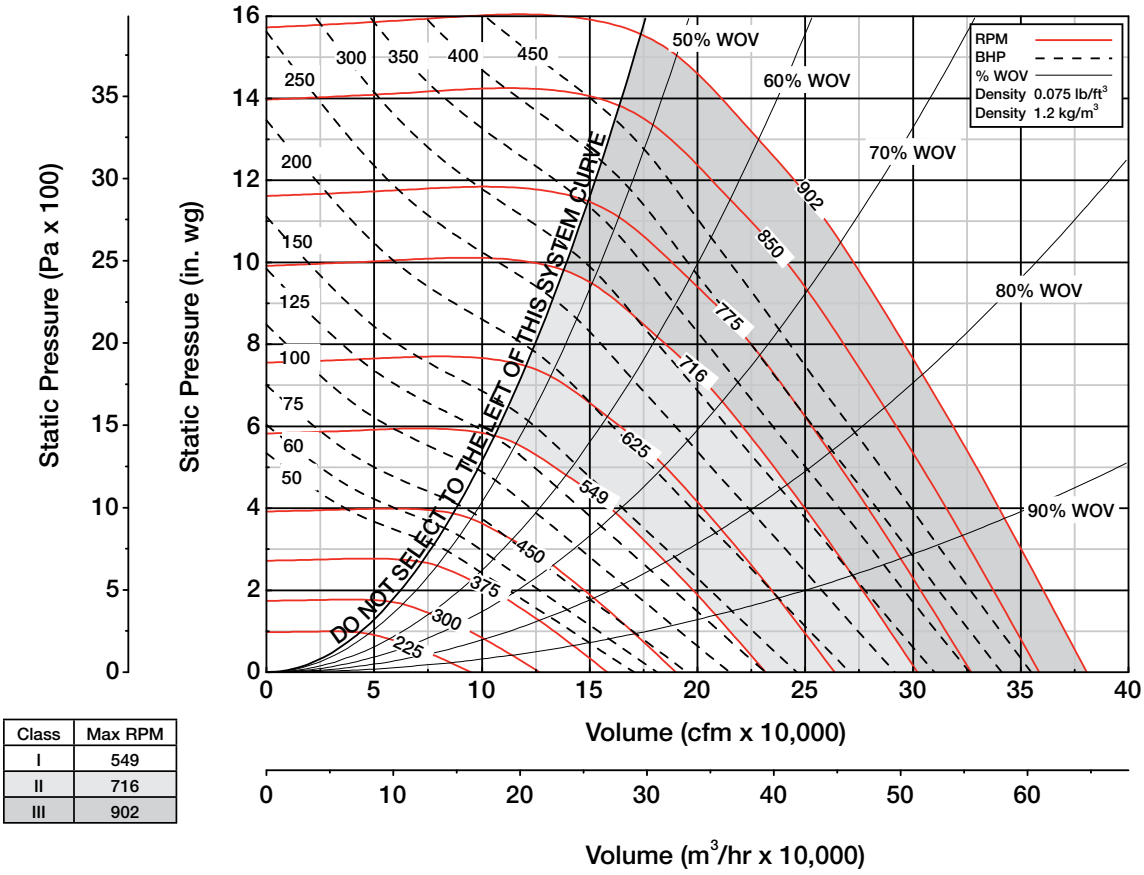
Minimum Starting HP = 50
Maximum RPM Class I = 549
Maximum RPM Class II = 716
Maximum RPM Class III = 902

CFM	OV	STATIC PRESSURE (in. wg)																			
		0.25		0.50		0.75		1.00		1.25		1.50		1.75		2.00		2.25		2.50	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
50000	906	155	3.20	184	5.30	210	7.60	233	10.1	257	13.0										
59600	1080	173	4.41	199	6.83	223	9.40	245	12.1	265	15.0	284	18.1	304	21.6						
69200	1254	192	5.95	216	8.71	238	11.6	258	14.6	277	17.7	295	21.0	312	24.4	328	27.9	346	31.9		
78800	1428	212	7.89	234	11.0	254	14.2	273	17.5	291	20.9	308	24.4	324	28.1	340	31.8	355	35.7	369	39.6
88400	1602	232	10.3	253	13.7	272	17.2	289	20.8	305	24.5	321	28.3	337	32.3	352	36.3	366	40.4	380	44.7
98000	1776	253	13.2	272	16.9	290	20.7	306	24.7	322	28.7	336	32.8	351	37.0	365	41.3	379	45.7	392	50.2
107600	1951	274	16.6	292	20.6	308	24.8	324	29.1	339	33.5	353	37.9	366	42.4	379	46.9	393	51.6	406	56.4
117200	2125	296	20.6	312	25.0	328	29.5	342	34.1	357	38.8	370	43.6	383	48.4	395	53.3	407	58.2	419	63.2
126800	2299	317	25.3	333	30.1	347	34.9	361	39.8	375	44.8	388	49.9	400	55.1	412	60.3	424	65.5	435	70.8
136400	2473	339	30.7	353	35.9	367	41.0	381	46.2	393	51.5	406	57.0	418	62.4	429	68.0	440	73.6	451	79.2
146000	2647	361	36.8	374	42.4	388	47.8	400	53.3	413	59.0	424	64.8	436	70.6	447	76.5	458	82.4	468	88.4
155600	2821	382	43.8	396	49.7	408	55.5	420	61.4	432	67.3	443	73.4	454	79.6	465	85.8	475	92.0	485	98.3
165200	2995	404	51.6	417	57.8	429	64.1	440	70.3	452	76.5	463	82.9	473	89.4	483	95.9	493	103	503	109
174800	3169	426	60.3	438	66.9	450	73.6	461	80.1	472	86.7	482	93.3	492	100	502	107	512	114	521	121
184400	3343	449	70.0	460	77.0	471	84.0	482	91.0	492	97.8	502	105	512	112	521	119	531	126	540	134
194000	3517	471	80.8	482	88.1	492	95.4	502	103	512	110	522	117	531	125	541	132	550	140	559	147

CFM	OV	STATIC PRESSURE (in. wg)																			
		2.50		3.00		3.50		4.00		4.50		5.00		5.50		6.00		6.50		7.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
92000	1668	385	46.7	411	55.6	435	64.8	461	75.6												
100800	1827	396	51.9	422	61.4	445	71.1	468	81.1	491	92.2	515	104								
109600	1987	409	57.8	433	67.6	456	77.9	478	88.5	499	99.3	520	110	542	123	563	136				
118400	2146	421	64.1	445	74.6	468	85.2	489	96.3	510	108	530	119	549	131	568	144	589	158	609	172
127200	2306	436	71.2	458	82.0	480	93.3	501	105	521	117	541	129	560	141	578	154	595	166	614	180
136000	2466	451	78.8	472	90.2	492	102	513	114	533	126	552	139	570	152	588	165	606	178	622	192
144800	2625	466	87.2	487	99.2	506	111	526	124	545	137	564	150	581	163	599	177	616	191	633	205
153600	2785	482	96.2	502	109	521	122	539	135	558	148	576	162	594	175	610	189	627	204	644	218
162400	2944	498	106	517	119	536	133	554	146	571	160	588	174	606	188	623	203	639	217	655	232
171200	3104	515	116	533	130	551	144	569	158	586	173	602	187	618	202	635	217	651	232	667	248
180000	3263	531	128	550	142	567	157	584	172	601	186	616	201	632	217	648	232	664	248	679	264
188800	3423	549	140	566	155	583	170	599	186	616	201	631	217	647	232	661	248	676	265	692	281
197600	3582	566	153	583	169	600	184	616	200	631	217	647	233	662	249	676	266	690	282	704	299
206400	3742	583	167	600	183	616	200	632	216	647	233	662	250	677	267	691	284	705	301	718	319
215200	3902	601	182	617	199	633	216	649	233	663	250	678	268	692	286	706	303	720	321	733	339
224000	4061	619	198	635	215	650	233	665	251	680	269	694	287	708	305	721	323	735	342	748	360

CFM	OV	STATIC PRESSURE (in. wg)																			
		7.00		7.50		8.00		8.50		9.00		10.00		11.00		12.00		13.00		14.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
135000	2447	621	190	637	204	655	219	673	235	690	251										
145000	2629	633	205	649	219	665	233	680	248	696	264	729	298								
155000	2810	646	220	661	235	677	250	692	265	706	281	735	312	767	348	797	385				
165000	2991	658	237	674	252	689	268	704	284	719	300	747	332	773	365	803	402	832	441	859	481
175000	3173	672	255	687	271	702	287	717	303	731	320	759	353	786	388	811	423	837	460	865	501
185000	3354	686	274	701	290	716	307	730	324	744	341	771	376	798	411	823	447	848	484	871	521
195000	3535	700	294	715	311	730	328	744	346	757	363	784	399	810	436	835	473	860	511	883	550
205000	3717	716	315	730	333	744	351	758	369	771	387	798	424	823	461	848	500	872	539	896	579
215000	3898	733	338	746	357	759	375	772	394	786	412	812	451	837	489	860	528	885	569		
225000	4079	750	363	763	382	775	401	788	420	800	439	826	478	851	518	874	559	897	600		
235000	4261	767	389	780	408	792	428	804	447	816	467	840	508	865	549	888	591				
245000	4442	785	416	797	436	809	456	821	477	833	497	856	538	879	581						
255000	4623	803	445	815	466	827	487	839	508	850	529	873	571	894	614						
265000	4805	821	475	833	497	844	518	856	540	867	562	890	606								
275000	4986	840	507	851	529	863	551	874	574	885	597										
285000	5167	859	540	870	563	881	586	892	610												

Performance certified is for model AFDW Arrangement 3, Installation Type B: free inlet, ducted outlet.
Performance ratings do not include the effects of appurtenances (accessories).
Power rating (BHP) does not include transmission losses.



Class	Max RPM
I	549
II	716
III	902

% WOV = (CFM X 100) / (RPM X 422)

Sound Power [dB Ref 10^{-12} watts]

RPM	%WOV	Inlet Sound Power, L_{Wi} 1	2	3	4	5	6	7	8	L_{Wi}A
180	100	91	90	86	83	78	72	66	61	84
	80	91	90	86	83	78	72	66	61	84
	60	92	89	86	83	78	72	67	62	84
	50	92	90	86	83	78	72	66	61	84
	40	94	91	86	83	78	72	67	62	85
250	100	93	90	88	85	80	71	66	62	86
	80	91	89	88	85	80	71	64	60	86
	60	90	88	87	85	80	71	65	60	86
	50	90	88	87	85	80	71	65	61	86
	40	90	88	87	85	80	71	66	62	86
350	100	105	98	92	90	85	78	74	71	91
	80	103	95	91	89	84	77	72	68	90
	60	100	93	90	89	84	77	73	69	90
	50	100	93	90	89	84	78	74	70	90
	40	100	93	90	90	85	78	74	71	91
500	100	110	107	100	98	93	88	85	81	100
	80	109	104	96	96	90	86	82	78	97
	60	105	100	94	95	90	86	83	80	96
	50	104	99	93	95	90	87	84	81	96
	40	106	99	92	95	90	87	85	82	96
650	100	118	117	107	105	101	96	92	89	107
	80	116	114	103	101	96	92	90	87	104
	60	114	111	100	98	94	93	90	88	102
	50	112	109	99	97	94	93	91	89	101
	40	111	108	98	97	94	93	92	89	101
902	100	121	130	117	112	110	105	101	97	118
	80	118	128	114	108	106	101	98	95	115
	60	115	125	111	105	104	100	99	96	112
	50	115	123	109	104	103	100	99	97	111
	40	115	121	109	104	103	101	100	98	111

RPM	%WOV	Outlet Sound Power, L_{Wo} 1	2	3	4	5	6	7	8	L_{Wo}A
180	100	88	85	82	78	70	61	54	45	79
	80	88	85	82	78	70	62	53	44	79
	60	87	84	82	78	70	62	53	44	79
	50	86	84	81	78	70	62	54	46	79
	40	86	84	81	78	70	62	54	46	78
250	100	96	89	85	82	76	68	62	57	83
	80	95	87	84	81	76	67	60	55	82
	60	92	85	83	81	75	67	60	55	82
	50	91	84	83	81	75	67	60	56	81
	40	91	84	82	81	75	67	60	55	81
350	100	110	97	92	89	84	78	72	68	91
	80	107	95	90	87	82	76	70	64	89
	60	104	91	88	85	81	75	69	64	87
	50	103	91	88	85	81	75	70	65	87
	40	103	91	88	85	81	75	70	66	87
500	100	113	107	102	99	93	87	82	78	100
	80	110	102	97	95	89	84	80	76	96
	60	108	99	94	93	87	83	80	76	94
	50	108	98	92	92	87	83	80	76	94
	40	108	98	92	92	87	83	80	77	94
650	100	118	115	109	106	101	96	90	85	108
	80	117	114	107	103	97	92	88	84	105
	60	115	110	102	98	93	90	87	84	101
	50	115	110	101	97	93	91	88	85	101
	40	114	108	100	97	93	91	88	85	100
902	100	124	127	118	115	111	105	100	95	117
	80	121	127	116	112	107	102	97	93	115
	60	118	125	111	107	103	98	96	93	112
	50	118	125	110	106	102	98	96	93	112
	40	117	123	109	106	102	98	97	93	111

The sound power level ratings shown are in decibels, referred to 10^{-12} watts calculated per AMCA Standard 301. Values shown are for inlet L_{Wi}, L_{Wi}A and outlet L_{Wo}, L_{Wo}A sound power levels for Installation Type B: free inlet, ducted outlet. Outlet ratings include the effects of duct end correction. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.

Dimensional Data

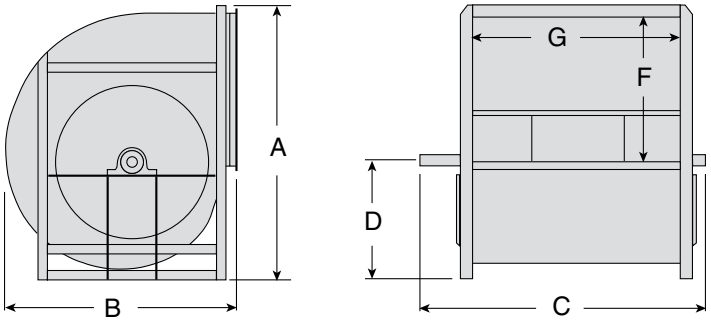
Sizes 12-73 Double-Width Arrangement 3 Class I, II & III

Dimensional data provided is for general information only and should not be used for exact installation dimensions.

Columns A, B and C have been rounded up to the nearest one inch. All other columns are rounded to the nearest 1/8 inch.

For detailed dimensional data refer to the appropriate CAPS submittal drawing.

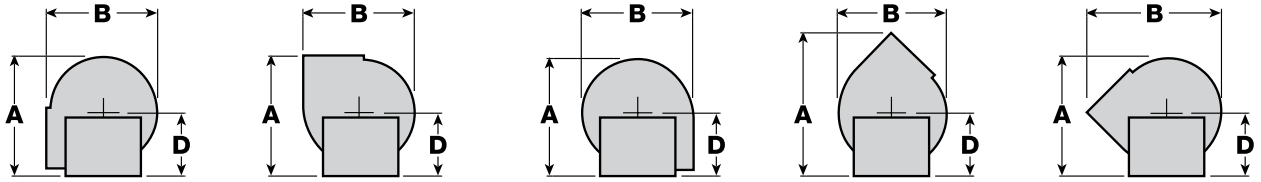
All dimensional drawings represent clockwise rotation. Counterclockwise would be a mirror image and would not affect dimensions. Rotation is determined from the drive side of the unit.



Clockwise Top Horizontal (TH) discharge shown above

Size	Class	A						B				C	D				F	G
		TH	BH	UB	DB	TAU	BAU	TH BH	UB DB	TAU	BAU		TH	BH BAU	UB TAU	DB		
12	I, II	25	26	25	24	30	26	24	25	23	29	27	10 1/4	15 1/4	12 3/4	11 3/4	11 7/8	17 1/2
	III	25	25	25	24	31	26	24	25	23	29	30	10 1/4	15 1/4	12 3/4	12	13	17 1/2
13	I, II	27	28	27	26	33	28	26	27	25	31	29	11 3/8	16 5/8	13 7/8	12 1/2	14 1/4	19 1/4
	III	28	28	27	26	34	28	26	27	25	31	32	11 3/8	16 5/8	13 7/8	12 7/8	14 1/4	19 1/4
15	I, II	30	31	29	28	36	30	28	30	27	34	33	12 1/4	18	15 1/4	13 5/8	15 3/4	21 3/8
	III	30	30	29	28	37	30	28	30	27	34	35	12 1/4	18	15 1/4	13 3/4	15 7/8	21 3/8
16	I, II	33	33	32	30	40	33	30	33	30	37	35	13 5/8	19 5/8	16 5/8	14 1/2	17 3/8	23 1/2
	III	33	33	32	30	41	33	30	32	30	37	37	13 5/8	19 5/8	16 5/8	14 3/4	17 3/8	23 1/2
18	I, II	36	37	34	33	43	35	33	36	32	41	39	14 7/8	21 3/8	18 1/8	15 5/8	19 1/4	26
	III	37	36	34	33	45	35	33	36	32	41	41	14 7/8	21 3/8	18 1/8	15 7/8	19 1/4	26
20	I, II	39	40	37	36	47	39	36	39	35	45	41	16 1/2	23 1/2	19 3/4	16 3/4	21 1/8	28 1/2
	III	40	40	37	36	48	39	36	39	35	45	44	16 1/2	23 1/2	19 3/4	17	21 1/8	28 1/2
22	I, II	43	44	40	39	52	42	39	43	39	49	45	18 1/4	25 7/8	21 3/4	18 1/8	23 3/8	31 3/4
	III	44	44	41	39	53	42	39	43	39	49	48	18 1/4	25 7/8	21 3/4	18 3/8	23 1/2	31 3/4
24	I, II	48	49	44	43	56	47	43	47	43	54	50	20 1/4	28 1/2	23 7/8	19 3/4	25 3/4	34 7/8
	III	49	48	44	43	58	47	43	47	43	54	53	20 1/4	28 1/2	23 7/8	19 7/8	25 7/8	34 7/8
27	I, II	52	53	48	47	61	51	47	52	47	59	53	22 1/4	31 1/8	26	21 1/4	28 1/4	38 5/8
	III	53	53	48	47	63	51	47	52	47	59	57	22 1/4	31 1/8	26	21 3/8	28 1/2	38 5/8
30	I, II	58	59	52	51	68	57	51	57	52	64	58	24 7/8	34 1/2	28 7/8	23 1/8	31 1/4	42 3/4
	III	59	58	53	51	69	57	51	57	52	64	62	24 7/8	34 1/2	28 7/8	23 3/8	31 5/8	42 3/4
33	I, II	66	64	59	56	77	62	56	63	57	72	62	28 5/8	37 5/8	33 1/8	25	34 5/8	46 7/8
	III	66	64	59	56	77	62	56	63	57	72	67	28 5/8	37 5/8	33 1/8	25 1/4	34 3/4	46 7/8
36	I, II	72	71	64	61	85	68	61	70	63	79	67	31 3/8	41 1/4	36 3/8	27 1/4	38 1/4	51 7/8
	III	72	70	64	61	85	68	61	69	63	79	72	31 3/8	41 1/4	36 3/8	27 1/2	38 3/8	51 7/8
40	I, II	79	77	70	67	92	75	67	76	69	87	73	34 1/4	45 1/4	39 3/4	29 5/8	42 1/4	57 1/4
	III	79	77	70	67	92	75	67	76	69	87	79	34 1/4	45 1/4	39 3/4	29 7/8	42 3/8	57 1/4
44	I, II	87	85	76	74	101	82	74	84	76	95	79	37 1/2	49 5/8	43 5/8	32 3/8	46 5/8	63 1/4
	III	87	85	77	74	102	82	74	84	76	95	85	37 1/2	49 5/8	43 5/8	32 5/8	46 3/4	63 1/4
49	I, II	95	93	83	81	111	90	81	92	84	105	88	41	54 3/8	47 5/8	35 1/4	51 3/8	69 5/8
	III	95	93	83	81	111	90	81	92	84	105	93	41	54 3/8	47 5/8	35 3/8	51 1/2	69 5/8
54	I, II	105	102	91	88	122	99	88	102	92	115	96	45	59 7/8	52 1/2	38 1/2	56 7/8	77
	III	105	102	92	89	122	99	89	102	92	115	101	45	59 7/8	52 1/2	38 3/4	56 7/8	77
60	I, II	115	113	100	97	134	109	97	112	102	127	106	49 1/2	65 7/8	57 5/8	42 1/4	62 7/8	85 1/8
	III	115	113	100	98	134	109	98	112	102	127	111	49 1/2	65 7/8	57 5/8	42 3/8	63	85 1/8
66	I, II	127	124	110	107	147	119	107	124	112	139	114	54 1/8	72 1/8	63 1/8	46	69 1/8	93 5/8
	III	127	124	110	107	147	119	107	124	112	139	121	54 1/8	72 1/8	63 1/8	46 1/4	69 1/4	93 5/8
73	I, II	139	136	120	117	162	131	117	136	123	153	125	59 5/8	79 1/2	69 1/2	50 1/2	76 1/2	103 1/2
	III	140	137	120	118	162	131	118	137	123	153	131	59 5/8	79 1/2	69 1/2	50 3/4	76 1/2	103 1/2

Due to Greenheck's policy of continuous product improvement, dimensions are subject to change.
For complete dimensional information, refer to the applicable CAPS submittal drawing.



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