

VERSAPLUG

Model: VSP
Plug Fan

FANSIZER®

Product Selection Software

FanSizer software allows you to select the best centrifugal or axial unit for your application. Input CFM and static pressure, and FanSizer will make the optimum selection. It allows you to complete job schedules which you can store, modify and print in seconds. Features include: on-line help, on-screen product drawings and dimensions, and complete text specifications. In addition, you can convert job schedules to ASCII code for use with other programs like word processing.

FANCAD®

Library of CAD Drawings

FanCad is a library of drawings for use with computer-aided design (CAD) systems. FanCad's pre-drawn details can save hours of drafting time. Included are all popular PennBarry fans and related items.

Visit Our Web Site

Point your internet web browser to www.PennBarry.com for up-to-the-minute information including:

- On-line catalog
- List of nearest PennBarry representatives
- What's New
- HVAC "Hot Links"

FanSizer and FanCad are registered trademarks.

Table of Contents

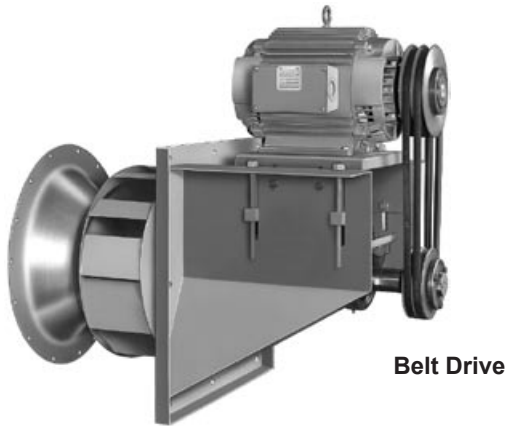
Introduction	1
Features and Benefits	2
Options and Accessories	3
Selection Criteria	4
Dimensional Data	6
Performance Data	7
Engineering Notes	22
Sample Specifications	23
Limited Warranty	24

©2005 PennBarry™ All rights reserved.

Following publication of this catalog changes may have been made in standard equipment, options and the like that would not be included. We reserve the right to make changes at any time, without notice, to models, specifications, options, availability, etc. This bulletin illustrates the appearance of PennBarry products at the time of publication and we reserve the right to make changes in design and construction at anytime without notice. Your local sales representative is the best source for current information.

Features and Benefits

VSP - VersaPlug Fan



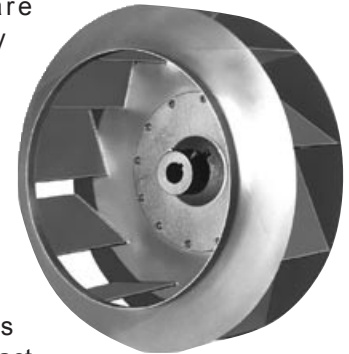
The VersaPlug saves space because it usually needs no connecting ductwork. The motor and drive assemblies are mounted on a sturdy base and directly fastened to the plenum wall, eliminating the need for extra support pedestals. The shaft goes through the wall and drives the fan wheel to circulate air in the plenum. These versatile units are designed to become an integral part of ovens, spray booths, HVAC or other equipment.

VersaPlug Features

- Wheel diameters from 12¹/₄" to 49" in AMCA Class I or II
- Air volumes to 50,000 cfm
- Efficient, non-overloading fan with the sturdy backward inclined wheel
- Standard unit includes wheel, motor and drive, motor pedestal and inlet cone
- One design for horizontal or vertical mounting
- Temperatures to 300°F for standard unit. With heat fan accessories, maximum temperature is 750°F
- Available with or without scroll housing
- Available pre-assembled for quick, easy installation

Wheel

The VersaPlug fans are equipped with heavy-duty backward inclined wheels designed to provide optimum performance for most operating conditions. The solid, single thickness blades are die cut and firmly attached to the backplate. A spun wheel cone is then welded to the blades. This wheel cone provides an exact overlap with the detached inlet cone to maximize the fans efficiency.

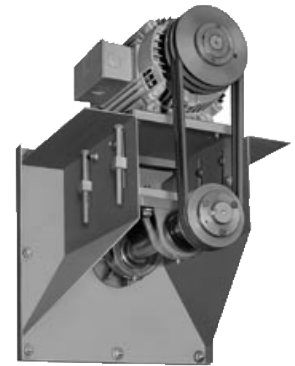


The VersaPlug wheel is adjustable on the extra-long shaft to accommodate a wall up to 4" thick.

Standard construction material is mild steel, but wheels can also be manufactured in aluminum, stainless steel and other materials.

Motor Mount

The VersaPlug motor is mounted on a sturdy, adjustable pedestal attached to a rectangular metal platform. This platform can be bolted directly to the desired surface, allowing either horizontal and vertical installation. Lifting lugs are attached to the mounting plate for easier handling. Four motor adjustment bolts allow the motor base to be easily maneuvered for belt replacement, drive adjustments and motor alignment.

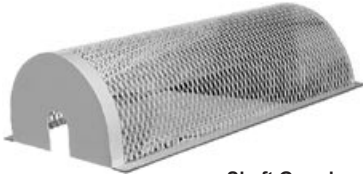




Belt Guard

Belt Guard

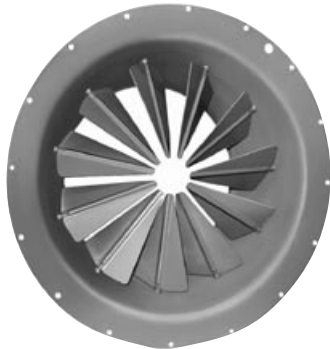
Sturdy steel belt guards are available for the VersaPlug fans. Optional totally enclosed belt guards can also be furnished to meet most safety requirements.



Shaft Guard

Shaft Guard

Shaft guards made of expanded metal are available to meet most safety requirements. The guards extend the entire length of the pedestal to enclose bearings and shaft cooler with wire mesh.



Inlet Vane

Inlet Vanes

Variable inlet vanes can be installed to regulate airflow as it enters the fan. Vanes are available in the external or nested style and are recommended for low temperature applications only. Stainless steel rods and bronze bushings are standard on PennBarry inlet vanes.

Housing (Optional)

An optional rotatable housing which can be mounted to the plenum is available for VersaPlug fans. To make installation easier, flanges and bracing are not included with the standard housing. Some applications, however, may require suitable bracing.

Additional Options

Type "C" spark resistant construction, housing drains, shaft seals, 500°F and 750°F heat fan packages and insulated plugs.

Selection Criteria

VSP - VersaPlug Fan

Performance data for VersaPlug fans is based on the following standard air conditions.

Density 0.075 lbs. per cubic feet
 Temperature 70°F
 Pressure 29.92 inches Hg
 Housing condition standard housed fan

To select the proper fan for your application, adjustments must be made for actual altitude, temperature and unhooded wall proximity factors. Use the following steps to correct for these conditions. For housed fans, eliminate steps 3 and 4.

1. Correct actual static pressure for altitude and temperature differences by using the three-step Density Correction Procedure found on page 23. This step will determine the standard static pressure.
2. Select the size of fan needed to operate at the desired cfm by using the performance tables that start on page 7.
3. Calculate the Wide Open Volume (WOV) at which the fan will operate by multiplying the “Q” factor (found below in Table 1) by the fan RPM. Then use the following equation to determine percent of WOV:

$$\frac{\text{Specified cfm}}{\text{WOV cfm}} = \% \text{ WOV}$$

Table 1. WOV “Q” Factors

SIZE	122	135	150	165	182	200	222	245	270	300	330	365	402	445	490
Q	1.080	1.456	1983	2.639	3.662	4.818	6.635	8.858	12.150	16.665	22.181	29.688	39.80	53.79	71.81

Table 2. Unhooded Wall Proximity Factors

Where: “D” is the wheel diameter.
 “d” is the distance between wheel tip and wall plenum, as a fraction of the wheel diameter.

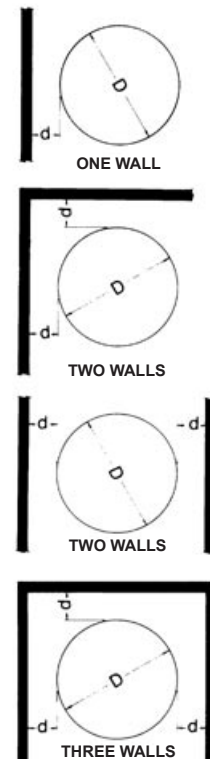
% WOV		ONE WALL			TWO WALLS			THREE WALLS		
		d/D			d/D			d/D		
		1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4
95	RPM	0.970	0.960	0.968	0.966	0.977	0.981	0.986	0.976	1.010
	BHP	0.983	0.908	0.927	0.866	0.895	0.925	0.967	0.911	0.976
90	RPM	0.975	0.965	0.974	0.970	0.984	0.988	0.993	0.981	1.005
	BHP	1.019	0.931	0.984	0.909	0.945	0.990	1.012	0.934	0.993
85	RPM	0.982	0.973	0.982	0.977	0.992	0.993	1.003	0.992	1.008
	BHP	1.045	0.989	1.027	0.955	0.996	1.032	1.051	0.975	1.044
80	RPM	0.991	0.982	0.993	0.985	1.000	0.998	1.014	1.002	1.015
	BHP	1.074	1.032	1.065	0.991	1.038	1.066	1.089	1.019	1.094
75	RPM	1.003	0.995	1.003	0.995	1.007	1.008	1.024	1.011	1.025
	BHP	1.117	1.078	1.100	1.028	1.069	1.108	1.112	1.056	1.137
70	RPM	1.020	1.012	1.016	1.008	1.016	1.022	1.035	1.020	1.037
	BHP	1.181	1.136	1.140	1.070	1.104	1.157	1.140	1.086	1.167
65	RPM	1.037	1.032	1.033	1.025	1.027	1.038	1.047	1.032	1.048
	BHP	1.241	1.187	1.192	1.120	1.142	1.205	1.178	1.116	1.184
60	RPM	1.057	1.055	1.057	1.047	1.043	1.055	1.063	1.046	1.063
	BHP	1.299	1.229	1.242	1.187	1.196	1.265	1.224	1.158	1.223
55	RPM	1.078	1.075	1.079	1.068	1.062	1.073	1.080	1.063	1.081
	BHP	1.354	1.293	1.307	1.233	1.267	1.332	1.271	1.214	1.270
50	RPM	1.098	1.095	1.100	1.086	1.078	1.093	1.094	1.080	1.100
	BHP	1.417	1.366	1.369	1.277	1.344	1.403	1.323	1.272	1.330
45	RPM	1.119	1.115	1.121	1.103	1.095	1.113	1.107	1.095	1.119
	BHP	1.500	1.449	1.433	1.343	1.426	1.472	1.382	1.325	1.395

NOTE: For multiple wall conditions, there may be several values for “d”. In this case calculate for all “d” values and use the highest resulting RPM and BHP factors.

4. Correct for unhooded wall proximity by multiplying BHP and fan RPM by the unhooded wall proximity factor found in Table 2.
5. Convert the BHP found in Step 4 to the actual operating BHP by multiplying it by the density ratio. (Use the density ratio which was calculated for Step 1.) **If the operating temperature is higher than the start-up temperature, a larger motor may be needed to prevent overload at start-up.** Use the Density Correction Procedure on page 23 to determine the density ratio at the start-up temperature and altitude. Multiply the BHP found in Step 4 by this density ratio to obtain the required start-up BHP.
6. If the plug fan will be used in high temperatures, use the RPM Reduction Factors Chart on page 23 to find the appropriate derating factor. Multiply the maximum wheel RPM (top right, page 23) by the derating factor to obtain the highest allowable operating RPM.
7. If the operating temperature exceeds 300°F, the 500°F heat fan package must be used. If the operating temperature is over 500°F, the 750°F heat fan package must be used. Consult the factory for temperatures over 750°F.

An example of VersaPlug selection is found on the next page.

Wheel-Plenum Relationship



As an example, we will choose a fan to operate under these system requirements:

CFM 15,000
 Static pressure 2.25" (actual)
 Temperature 200°F
 Altitude 2,000 feet

The fan will be installed in a plenum near two walls, with a distance of 8.25" between the wall and the wheel.

- For our altitude of 2,000 feet we obtain a CF_{ALT} of .930. Putting this into the equation, we get:

$$.930 \times \frac{530^{\circ}R}{200^{\circ}F + 460^{\circ}F} = .747 \text{ density ratio}$$

To obtain standard static pressure,

$$\frac{2.25}{.747} = 3" \text{ standard static pressure}$$

- Using the performance tables we find that five fan sizes can deliver 15,000 cfm at 3" SP. In this example we will use the size 330, the middle of the five sizes. The catalog performance (interpolated) is 967 rpm and 10.18 bhp. Note that the 10.18 bhp is for .075 density, not actual operating density.

- Using Table 1, we find a "Q" factor of 22.181 for fan size 330.

$$22.181 \times 967 \text{ rpm} = 21,449 \text{ cfm}$$

$$\% \text{ WOV} = \frac{15,000}{21,449} = 70\% \text{ WOV}$$

- To obtain d/D relationship for our case:

$$\frac{8.25"}{33"} = \frac{1}{4}$$

With a 1/4 relationship at two walls and 70% WOV we obtain:

$$\text{Correction for bhp} = 1.070$$

$$\text{Correction for rpm} = 1.008$$

$$10.18 \text{ bhp} \times 1.070 = 10.89 \text{ bhp}$$

$$967 \text{ rpm} \times 1.008 = 975 \text{ rpm}$$

- We now convert the bhp to our actual conditions:

$$10.89 \times .747 \text{ (density factor for } 200^{\circ}F, 2000 \text{ ft. ASL)} = 8.13 \text{ operating bhp}$$

$$10.89 \times .930 \text{ (density factor for start-up temperature)} = 10.13 \text{ start-up bhp (70}^{\circ}F)$$

We now have the following:

330 VersaPlug Fan

Air Volume 15,000 cfm
 Static pressure 2.25 inches
 Temperature 200°F
 Elevation 2000 feet
 Speed 975 rpm
 Operating bhp 8.13
 Start-up bhp 10.13

- Finally, we must check wheel speed.

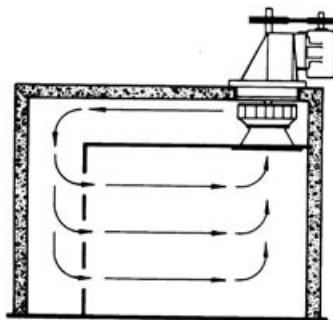
$$\text{Rpm reduction factor} = .96 \text{ (from page 25)}$$

$$\text{Max. rpm for Class I, 330} = 1277$$

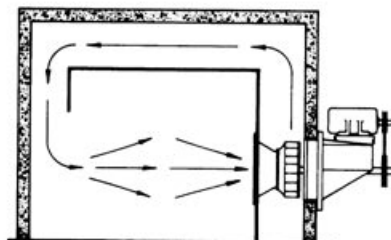
$$1277 \times .96 = 1225$$

Operating rpm for our example (975 rpm) is less than 1225, so the standard Class I wheel is acceptable.

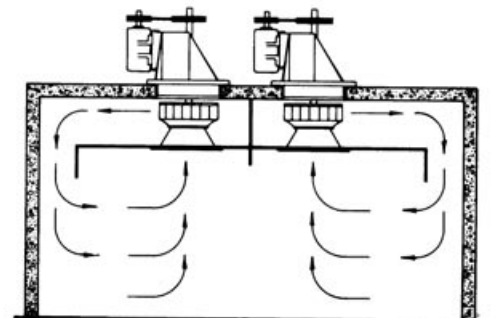
Typical Airflow Patterns for the VersaPlug Fan



Omni-directional circulation



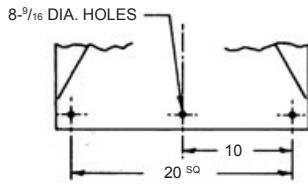
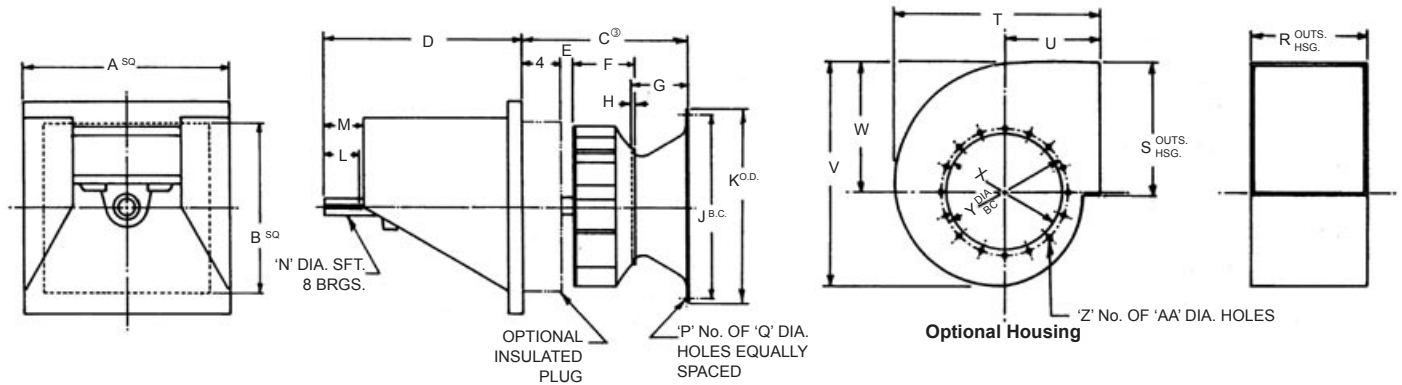
Uni-directional circulation



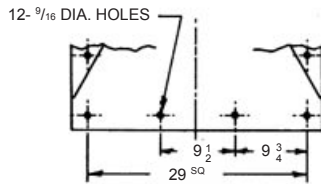
Counter-directional circulation

Dimensional Data

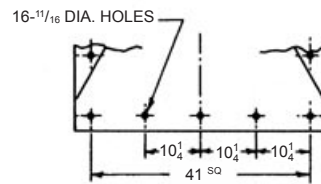
VSP - VersaPlug Fan



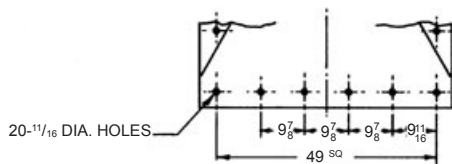
122 Thru 165 Mounting Holes
(Typical 4 Sides)



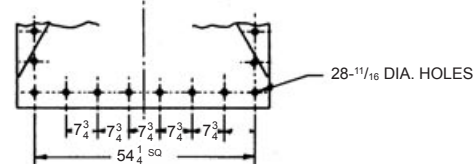
182 Thru 245 Mounting Holes
(Typical 4 Sides)



270 Thru 365 Mounting Holes
(Typical 4 Sides)



402 & 445 Mounting Holes
(Typical 4 Sides)



490 Mounting Holes
(Typical 4 Sides)

Notes:

1. Wheel and housing are available in CW or CCW rotation.
2. Wheel opening is in both sides of housing.

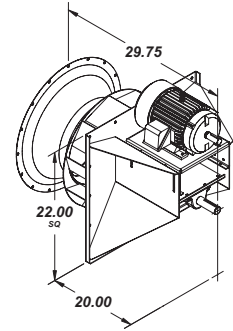
Dimensions

SIZE	A	B	C	D	E	F	G	H	J	K	L	M	'N' - CLASS I		'N' - CLASS II		P	Q	R	S	T	U	V	W	X	Y	Z	AA	MAX. MTR. FRAME	
													SFT	KWY	SFT	KWY													ODP	TEFC
122	22	17 1/2	13 3/4	20	15/16	4 3/4	4 3/8	5/16	14 3/4	15 3/4	3	3 1/4	1 3/16	1/4 X 1/8	1 11/16	3/8 X 3/16	8	11/16	9 3/4	13	20 13/16	10 1/4	22 1/4	12 15/16	13 1/4	14 3/4	8	7/32	213 T	213 T
135	22	17 1/2	14 13/16	20	1 1/8	5 1/4	4 13/16	3/8	15 3/4	17	3	3 1/4	1 7/16	3/8 X 3/16	1 11/16	3/8 X 3/16	8	11/16	10 13/16	14 5/16	22 7/8	11 1/4	24 1/2	14	14 9/16	15 3/4	8	7/32	213 T	213 T
150	22	17 1/2	16	20	1 1/8	5 7/8	5 3/8	3/8	17 1/4	18 1/2	3	3 1/4	1 7/16	3/8 X 3/16	1 11/16	3/8 X 3/16	8	11/16	11 15/16	15 7/8	25 7/16	12 1/2	27 1/4	15 13/16	16 3/16	17 1/4	8	7/32	215 T	215 T
165	22	17 1/2	17 1/4	20	1 5/16	6 7/16	5 15/16	7/16	19	20	3	3 1/4	1 7/16	3/8 X 3/16	1 11/16	3/8 X 3/16	8	11/16	13 3/16	17 3/8	28	13 3/4	29 7/8	17 5/16	17 3/4	19	8	7/32	215 T	215 T
182	31	25 1/2	18 3/8	25	1 1/4	7 1/8	6 9/16	9/16	21	22	4 1/2	4 3/4	1 7/16	3/8 X 3/16	1 11/16	3/8 X 3/16	8	11/16	14 3/8	19 3/8	30 3/16	14 1/2	33 1/8	19 5/16	19 1/2	21	8	7/32	254 T	254 T
200	31	25 1/2	20 1/16	25	1 11/16	7 13/16	7 3/16	5/8	23 3/8	24 3/4	4 1/2	4 3/4	1 7/16	3/8 X 3/16	1 11/16	3/8 X 3/16	8	11/16	16	21 1/4	32 7/8	15 5/8	36 3/8	21 3/16	21 3/8	23 3/8	8	7/32	254 T	254 T
222	31	25 1/2	21 1/2	25	1 7/16	8 11/16	8	5/8	25 1/2	27 1/4	4 1/2	4 3/4	1 11/16	3/8 X 3/16	1 15/16	1/2 X 1/4	16	11/16	17 1/2	23 5/8	36 11/16	17 1/2	40 7/16	23 9/16	23 3/4	25 1/2	16	9/32	256 T	254 T
245	31	25 1/2	23 1/2	25	1 7/8	9 9/16	8 13/16	3/4	27 1/2	29 1/4	4 1/2	4 3/4	1 11/16	3/8 X 3/16	1 15/16	1/2 X 1/4	16	11/16	19 1/2	25 15/16	40 5/16	19 1/4	44 7/16	25 7/8	26 1/16	27 1/2	16	9/16	256 T	254 T
270	44	37 1/2	25 5/8	31	2 1/8	10 11/16	9 11/16	7/8	29 3/4	32	5	5 3/8	1 11/16	3/8 X 3/16	1 15/16	1/2 X 1/4	16	11/16	21 9/16	28 5/8	44 5/16	21 1/8	49	28 9/16	28 1/2	29 3/4	16	9/32	284 T	284 T
300	44	37 1/2	27 11/16	31	2 1/16	11 7/8	10 3/4	1	33 5/8	35 3/8	5	5 3/8	1 11/16	3/8 X 3/16	1 15/16	1/2 X 1/4	16	11/16	23 11/16	31 13/16	49 1/4	23 7/16	54 1/2	31 3/4	31 5/8	33 5/8	16	9/32	286 T	286 T
330	44	37 1/2	30 3/16	31	2 5/16	13	11 13/16	15/16	37 1/4	38 3/4	5	5 3/8	1 11/16	3/8 X 3/16	2 3/16	1/2 X 1/4	16	11/16	26 1/4	34 15/16	54 3/16	25 13/16	59 7/8	34 7/8	34 3/4	37 1/4	16	9/32	324 T	324 T
365	44	37 1/2	32 7/8	31	2 9/16	14 3/8	13 1/16	1 1/8	40 3/4	41 7/8	5	5 3/8	1 15/16	1/2 X 1/4	2 7/16	5/8 X 5/16	16	11/16	28 7/8	38 11/16	60 1/8	28 5/8	66 5/16	38 5/8	38 1/2	40 3/4	16	9/32	326 T	324 T
402	52	46 1/2	36 1/16	36	3 1/16	15 13/16	14 7/16	1 1/4	44 1/8	46 1/8	5 1/2	5 3/4	2 3/16	1/2 X 1/4	2 11/16	5/8 X 5/16	16	11/16	32 11/16	42 9/16	66 1/4	31 9/16	73 1/16	42 1/2	42 1/2	44 1/8	16	9/32	326 T	326 T
445	52	46 1/2	39 1/4	36	3 3/16	17 1/2	15 15/16	1 3/8	48 5/8	50 3/8	5 1/2	5 3/4	2 7/16	5/8 X 5/16	2 11/16	5/8 X 5/16	16	11/16	35 1/4	47 3/16	71 1/2	33 1/8	80 7/8	47 1/16	47 1/4	48 5/8	16	9/32	364 T	364 T
490	57 1/4	50 1/4	43	37	3 3/4	19 1/4	17 9/16	1 9/16	53 1/8	55 1/8	5 1/2	5 3/4	2 11/16	5/8 X 5/16	3 7/16	7/8 X 7/16	16	11/16	39	51 13/16	79	36 13/16	88 7/8	51 3/4	52	53 1/8	16	9/32	365 T	365 T

Note: Dimensions should not be used for construction. Certified drawings are available upon request.

122

Class	Max. Unit RPM
I	3195
II	4000



Wheel Diameter = 12.25 in.
Inlet Area = .920 sq. ft.
Tip Speed, FPM = 3.21 x RPM
Maximum BHP = .079 x (RPM/1000) ³

CFM	O.V.	1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		7/8" SP		1" SP		1 1/4" SP		1 1/2" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
688	800	858	0.05	954	0.07	1044	0.08	1124	0.10	1199	0.12	1271	0.14	1344	0.16	1484	0.22	1617	0.27
774	900	917	0.06	1006	0.08	1090	0.10	1169	0.12	1242	0.14	1310	0.16	1375	0.18	1504	0.23	1629	0.29
860	1000	980	0.07	1063	0.09	1141	0.11	1216	0.13	1288	0.16	1354	0.18	1417	0.20	1535	0.25	1651	0.31
946	1100	1046	0.09	1122	0.11	1196	0.13	1266	0.15	1334	0.18	1400	0.20	1462	0.23	1576	0.28	1683	0.33
1032	1200	1114	0.11	1185	0.13	1254	0.15	1320	0.18	1384	0.20	1447	0.23	1508	0.25	1621	0.31	1724	0.36
1118	1300	1183	0.13	1250	0.15	1314	0.18	1377	0.20	1438	0.23	1497	0.25	1555	0.28	1666	0.34	1769	0.40
1204	1400	1254	0.15	1317	0.18	1377	0.21	1437	0.23	1495	0.26	1551	0.29	1606	0.31	1713	0.37	1814	0.44
1290	1500	1325	0.18	1385	0.21	1442	0.24	1498	0.26	1553	0.29	1607	0.32	1660	0.35	1762	0.41	1861	0.48
1376	1600	1398	0.21	1455	0.24	1509	0.27	1562	0.30	1614	0.33	1666	0.36	1716	0.39	1814	0.45	1909	0.52
1462	1700	1471	0.25	1525	0.28	1577	0.31	1628	0.34	1677	0.37	1726	0.40	1775	0.43	1869	0.50	1959	0.57
1548	1800	1545	0.28	1597	0.32	1647	0.35	1695	0.38	1742	0.42	1789	0.45	1835	0.48	1925	0.55	2013	0.62
1634	1900	1619	0.33	1669	0.36	1717	0.40	1763	0.43	1808	0.47	1853	0.50	1897	0.54	1984	0.61	2068	0.68
1720	2000	1694	0.37	1741	0.41	1788	0.45	1832	0.48	1876	0.52	1918	0.56	1961	0.59	2044	0.67	2125	0.74
1892	2200	1844	0.48	1888	0.52	1931	0.56	1973	0.60	2014	0.64	2053	0.68	2092	0.72	2169	0.80	2244	0.88
2064	2400	1996	0.61	2037	0.65	2077	0.69	2116	0.74	2154	0.78	2191	0.83	2228	0.87	2299	0.96	2369	1.04
2236	2600	2150	0.75	2188	0.80	2225	0.85	2261	0.90	2297	0.95	2332	0.99	2367	1.04	2434	1.13	2500	1.23
2408	2800	2304	0.93	2339	0.98	2374	1.03	2408	1.08	2442	1.13	2475	1.18	2508	1.23	2572	1.34	2634	1.44
2580	3000	2458	1.12	2491	1.18	2524	1.23	2557	1.29	2588	1.34	2620	1.40	2651	1.45	2711	1.56	2770	1.67
2752	3200	2613	1.35	2645	1.40	2676	1.46	2706	1.52	2736	1.58	2766	1.64	2795	1.70	2853	1.82	2910	1.93
2924	3400	2769	1.60	2799	1.66	2828	1.72	2857	1.79	2885	1.85	2914	1.91	2942	1.97	2997	2.10	3051	2.22

CFM	O.V.	2" SP		2 1/2" SP		3" SP		3 1/2" SP		4" SP		4 1/2" SP		5" SP		5 1/2" SP		6" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1032	1200	1919	0.49	2110	0.63	2294	0.79	2468	0.96										
1118	1300	1955	0.52	2133	0.66	2309	0.82	2478	0.99	2640	1.17	2797	1.36						
1204	1400	1997	0.57	2165	0.71	2331	0.86	2493	1.03	2650	1.22	2802	1.41	2949	1.61				
1290	1500	2042	0.62	2205	0.76	2360	0.91	2514	1.08	2666	1.26	2813	1.46	2956	1.67	3094	1.88	3230	2.10
1376	1600	2088	0.67	2248	0.81	2397	0.97	2542	1.13	2687	1.32	2829	1.51	2968	1.72	3103	1.94	3234	2.16
1462	1700	2133	0.72	2294	0.88	2439	1.03	2578	1.20	2715	1.38	2851	1.57	2985	1.78	3116	2.00	3244	2.23
1548	1800	2181	0.77	2339	0.94	2484	1.11	2619	1.27	2749	1.45	2878	1.64	3007	1.85	3134	2.07	3259	2.30
1634	1900	2230	0.83	2385	1.00	2530	1.18	2663	1.36	2790	1.53	2913	1.72	3035	1.92	3157	2.14	3277	2.37
1720	2000	2282	0.90	2432	1.07	2575	1.26	2709	1.44	2833	1.63	2952	1.82	3069	2.01	3185	2.23	3301	2.45
1892	2200	2391	1.05	2532	1.23	2669	1.42	2800	1.62	2924	1.82	3041	2.03	3152	2.23	3259	2.44	3365	2.66
2064	2400	2507	1.22	2640	1.41	2769	1.60	2894	1.81	3015	2.03	3131	2.25	3242	2.47	3347	2.69	3448	2.92
2236	2600	2628	1.42	2754	1.62	2876	1.82	2995	2.03	3111	2.25	3224	2.49	3333	2.73	3438	2.97	3538	3.21
2408	2800	2754	1.64	2873	1.85	2989	2.06	3102	2.28	3212	2.51	3320	2.75	3426	3.00	3529	3.25	3629	3.51
2580	3000	2885	1.89	2997	2.11	3107	2.34	3215	2.56	3320	2.80	3423	3.04	3524	3.29	3624	3.56	3721	3.83
2752	3200	3018	2.16	3124	2.40	3229	2.64	3332	2.88	3423	3.12	3531	3.37	3628	3.63	3723	3.89	3817	4.17
2924	3400	3155	2.47	3256	2.72	3355	2.97	3453	3.22	3549	3.47	3644	3.73	3737	4.00	3829	4.27	3919	4.55
3096	3600	3293	2.81	3390	3.07	3484	3.33	3577	3.59	3670	3.86	3761	4.13	3850	4.41	3939	4.68		
3268	3800	3433	3.17	3526	3.45	3617	3.72	3706	4.00	3794	4.28	3881	4.57	3967	4.85				
3440	4000	3575	3.58	3665	3.87	3752	4.15	3837	4.44	3921	4.74	4005	5.04						

CFM	O.V.	6 1/2" SP		7" SP		7 1/2" SP		8" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1892	2200	3471	2.89	3577	3.13	3682	3.39	3786	3.65
2064	2400	3547	3.15	3644	3.38	3741	3.63	3838	3.89
2236	2600	3634	3.45	3728	3.69	3819	3.94	3909	4.19
2408	2800	3725	3.77	3818	4.03	3907	4.29	3994	4.55
2580	3000	3816	4.10	3908	4.38	3998	4.66		
2752	3200	3910	4.46	4000	4.75				
2924	3400	4008	4.84						

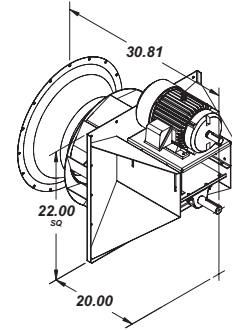
Notes: 1) Power rating (BHP) does not include belt drive losses.
 2) Bold figures indicate maximum static efficiency.
 3) Single Width, Single Inlet.

Performance Data

VSP - VersaPlug Fan

135

Class	Max. Unit RPM
I	2895
II	3786



Wheel Diameter = 13.5 in.
Inlet Area = 1.120 sq. ft.
Tip Speed, FPM = 3.53 x RPM
Maximum BHP = .128 x (RPM/1000) ³

CFM	O.V.	1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		7/8" SP		1" SP		1 1/4" SP		1 1/2" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
840	800	779	0.06	866	0.08	947	0.10	1020	0.12	1088	0.15	1153	0.17	1219	0.20	1347	0.26	1467	0.33
945	900	832	0.07	913	0.09	989	0.12	1061	0.14	1127	0.17	1188	0.19	1247	0.22	1364	0.28	1478	0.35
1050	1000	890	0.09	964	0.11	1035	0.14	1103	0.16	1168	0.19	1229	0.22	1285	0.25	1392	0.31	1498	0.37
1155	1100	949	0.11	1018	0.13	1085	0.16	1149	0.19	1211	0.22	1270	0.25	1327	0.28	1430	0.34	1527	0.40
1260	1200	1011	0.13	1075	0.16	1138	0.19	1198	0.21	1256	0.24	1313	0.28	1368	0.31	1471	0.38	1564	0.44
1365	1300	1074	0.16	1134	0.19	1193	0.22	1250	0.25	1305	0.28	1359	0.31	1411	0.34	1512	0.41	1605	0.49
1470	1400	1138	0.19	1195	0.22	1250	0.25	1304	0.28	1356	0.31	1407	0.35	1457	0.38	1554	0.45	1646	0.53
1575	1500	1203	0.22	1257	0.25	1309	0.29	1360	0.32	1410	0.35	1458	0.39	1506	0.42	1599	0.50	1688	0.58
1680	1600	1268	0.26	1320	0.29	1370	0.33	1418	0.36	1465	0.40	1512	0.44	1557	0.47	1646	0.55	1732	0.63
1785	1700	1335	0.30	1384	0.34	1431	0.37	1477	0.41	1522	0.45	1567	0.49	1610	0.53	1696	0.61	1778	0.69
1890	1800	1402	0.35	1449	0.39	1494	0.43	1538	0.47	1581	0.51	1623	0.55	1665	0.59	1747	0.67	1826	0.75
1995	1900	1469	0.40	1514	0.44	1558	0.48	1600	0.52	1641	0.57	1681	0.61	1721	0.65	1800	0.74	1877	0.82
2100	2000	1537	0.45	1580	0.50	1622	0.54	1663	0.59	1702	0.63	1741	0.67	1779	0.72	1855	0.81	1928	0.90
2310	2200	1674	0.58	1713	0.63	1752	0.68	1790	0.73	1827	0.78	1863	0.83	1898	0.88	1968	0.97	2037	1.07
2520	2400	1812	0.74	1849	0.79	1885	0.84	1920	0.90	1955	0.95	1989	1.00	2022	1.06	2086	1.16	2150	1.27
2730	2600	1951	0.92	1985	0.97	2019	1.03	2052	1.09	2084	1.15	2116	1.21	2148	1.26	2209	1.38	2268	1.49
2940	2800	2090	1.12	2122	1.19	2154	1.25	2185	1.31	2216	1.37	2246	1.44	2276	1.50	2333	1.62	2390	1.75
3150	3000	2230	1.36	2261	1.43	2291	1.50	2320	1.56	2349	1.63	2377	1.70	2405	1.77	2460	1.90	2514	2.03
3360	3200	2371	1.63	2400	1.71	2428	1.78	2456	1.85	2483	1.92	2510	1.99	2537	2.06	2589	2.21	2640	2.35
3570	3400	2512	1.94	2539	2.02	2566	2.09	2592	2.17	2618	2.24	2644	2.32	2669	2.40	2719	2.55	2768	2.70

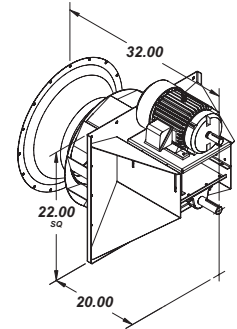
CFM	O.V.	2" SP		2 1/2" SP		3" SP		3 1/2" SP		4" SP		4 1/2" SP		5" SP		5 1/2" SP		6" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1260	1200	1741	0.59	1915	0.76	2081	0.96	2240	1.16										
1365	1300	1774	0.64	1936	0.80	2095	1.00	2249	1.21	2395	1.43	2538	1.66						
1470	1400	1812	0.69	1965	0.86	2115	1.05	2262	1.26	2405	1.48	2542	1.71	2676	1.96				
1575	1500	1853	0.75	2000	0.92	2141	1.10	2282	1.31	2419	1.54	2553	1.78	2682	2.02				
1680	1600	1894	0.81	2040	0.99	2175	1.17	2307	1.38	2438	1.60	2567	1.84	2693	2.09	2808	2.28	2931	2.55
1785	1700	1936	0.87	2081	1.06	2214	1.26	2339	1.46	2463	1.67	2587	1.91	2708	2.16	2828	2.43	2944	2.71
1890	1800	1979	0.94	2122	1.14	2254	1.34	2377	1.55	2495	1.76	2612	1.99	2729	2.24	2844	2.51	2957	2.79
1995	1900	2024	1.01	2164	1.22	2296	1.43	2417	1.65	2531	1.86	2643	2.09	2754	2.34	2865	2.60	2974	2.88
2100	2000	2071	1.09	2207	1.30	2337	1.53	2458	1.75	2571	1.98	2679	2.21	2785	2.45	2890	2.70	2996	2.98
2310	2200	2170	1.28	2298	1.49	2422	1.72	2540	1.97	2653	2.21	2759	2.46	2860	2.71	2958	2.96	3054	3.23
2520	2400	2275	1.49	2396	1.71	2512	1.95	2626	2.20	2736	2.46	2841	2.73	2942	3.00	3037	3.27	3129	3.54
2730	2600	2385	1.73	2499	1.96	2610	2.21	2717	2.47	2823	2.74	2925	3.02	3024	3.31	3119	3.60	3211	3.90
2940	2800	2499	1.99	2607	2.25	2712	2.51	2815	2.77	2915	3.05	3013	3.34	3109	3.64	3202	3.95	3293	4.26
3150	3000	2618	2.29	2719	2.56	2819	2.84	2917	3.11	3013	3.40	3106	3.69	3198	4.00	3288	4.32	3377	4.65
3360	3200	2739	2.63	2835	2.91	2930	3.20	3023	3.49	3115	3.79	3204	4.09	3292	4.40	3379	4.73	3464	5.06
3570	3400	2863	3.00	2954	3.30	3044	3.60	3133	3.91	3221	4.22	3307	4.53	3391	4.85	3474	5.18	3556	5.52
3780	3600	2988	3.41	3076	3.72	3162	4.04	3246	4.36	3330	4.69	3413	5.02	3494	5.35	3574	5.69		
3990	3800	3116	3.85	3200	4.19	3282	4.52	3363	4.86	3443	5.20	3522	5.55	3600	5.89				
4200	4000	3244	4.34	3325	4.70	3404	5.05	3482	5.40	3558	5.75	3634	6.12						

CFM	O.V.	6 1/2" SP		7" SP		7 1/2" SP		8" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
2310	2200	3150	3.51	3246	3.80	3341	4.11	3435	4.44
2520	2400	3218	3.82	3307	4.11	3395	4.41	3482	4.72
2730	2600	3298	4.19	3383	4.48	3466	4.78	3547	5.09
2940	2800	3380	4.58	3464	4.89	3545	5.21	3624	5.52
3150	3000	3463	4.98	3547	5.32	3628	5.66		
3360	3200	3548	5.41	3630	5.76				
3570	3400	3637	5.88						

Notes: 1) Power rating (BHP) does not include belt drive losses.
 2) Bold figures indicate maximum static efficiency.
 3) Single Width, Single Inlet.

150

Class	Max. Unit RPM
I	2589
II	3384



Wheel Diameter = 15 in.
Inlet Area = 1.390 sq. ft.
Tip Speed, FPM = 3.93 x RPM
Maximum BHP = .217 x (RPM/1000) ³

CFM	O.V.	1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		7/8" SP		1" SP		1 1/4" SP		1 1/2" S	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1032	800	701	0.07	779	0.10	852	0.12	918	0.15	979	0.18	1038	0.21	1097	0.25	1212	0.32	1320	0.41
1161	900	749	0.09	822	0.12	890	0.15	955	0.18	1014	0.21	1069	0.24	1123	0.27	1228	0.35	1331	0.43
1290	1000	801	0.11	868	0.14	932	0.17	993	0.20	1051	0.24	1106	0.27	1157	0.30	1253	0.38	1348	0.46
1419	1100	854	0.14	917	0.17	977	0.20	1034	0.23	1090	0.27	1143	0.30	1194	0.34	1287	0.42	1374	0.50
1548	1200	910	0.16	968	0.20	1024	0.23	1078	0.26	1131	0.30	1182	0.34	1231	0.38	1324	0.46	1408	0.55
1677	1300	966	0.20	1021	0.23	1073	0.27	1125	0.30	1174	0.34	1223	0.38	1270	0.42	1361	0.51	1445	0.60
1806	1400	1024	0.23	1075	0.27	1125	0.31	1173	0.35	1221	0.39	1267	0.43	1312	0.47	1399	0.56	1482	0.66
1935	1500	1082	0.27	1131	0.31	1178	0.35	1224	0.40	1269	0.44	1313	0.48	1356	0.52	1439	0.62	1591	0.72
2064	1600	1141	0.32	1188	0.36	1233	0.41	1276	0.45	1318	0.49	1360	0.54	1402	0.58	1481	0.68	1559	0.78
2193	1700	1201	0.37	1246	0.42	1288	0.46	1329	0.51	1370	0.56	1410	0.60	1449	0.65	1526	0.75	1600	0.85
2322	1800	1261	0.43	1304	0.48	1345	0.53	1384	0.57	1423	0.62	1461	0.67	1498	0.72	1572	0.83	1644	0.93
2451	1900	1322	0.49	1363	0.54	1402	0.59	1440	0.65	1477	0.70	1513	0.75	1549	0.80	1620	0.91	1689	1.02
2580	2000	1383	0.56	1422	0.62	1460	0.67	1496	0.72	1532	0.78	1567	0.83	1601	0.89	1669	1.00	1736	1.11
2838	2200	1506	0.72	1542	0.78	1577	0.84	1611	0.90	1644	0.96	1677	1.02	1709	1.08	1771	1.20	1833	1.32
3096	2400	1630	0.91	1664	0.98	1696	1.04	1728	1.11	1759	1.17	1790	1.24	1819	1.30	1878	1.43	1935	1.57
3354	2600	1756	1.13	1786	1.20	1817	1.27	1847	1.35	1876	1.42	1905	1.49	1933	1.56	1988	1.70	2041	1.84
3612	2800	1881	1.39	1910	1.47	1939	1.54	1967	1.62	1994	1.70	2021	1.77	2048	1.85	2100	2.00	2151	2.15
3870	3000	2007	1.68	2035	1.77	2061	1.85	2088	1.93	2114	2.01	2139	2.10	2165	2.18	2214	2.34	2263	2.51
4128	3200	2134	2.02	2160	2.11	2185	2.19	2210	2.28	2235	2.37	2259	2.46	2283	2.55	2330	2.72	2376	2.90
4386	3400	2261	2.40	2286	2.49	2310	2.58	2333	2.68	2356	2.77	2379	2.87	2402	2.96	2447	3.15	2491	3.33

CFM	O.V.	2" SP		2 1/2" SP		3" SP		3 1/2" SP		4" SP		4 1/2" SP		5" SP		5 1/2" SP		6" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1548	1200	1567	0.73	1723	0.94	1873	1.18	2016	1.43										
1677	1300	1596	0.79	1742	0.99	1886	1.23	2024	1.49	2156	1.76	2284	2.04						
1806	1400	1631	0.85	1768	1.06	1903	1.29	2036	1.55	2165	1.83	2288	2.12	2408	2.42				
1935	1500	1668	0.92	1800	1.14	1927	1.36	2053	1.62	2177	1.90	2297	2.19	2414	2.50	2527	2.82	2638	3.15
2064	1600	1705	1.00	1836	1.22	1958	1.45	2076	1.70	2194	1.97	2311	2.27	2424	2.58	2534	2.91	2641	3.24
2193	1700	1742	1.08	1873	1.31	1992	1.55	2105	1.80	2217	2.06	2328	2.36	2438	2.67	2545	3.00	2649	3.34
2322	1800	1781	1.16	1910	1.41	2029	1.66	2139	1.91	2245	2.17	2351	2.46	2456	2.77	2559	3.10	2661	3.44
2451	1900	1821	1.25	1948	1.51	2066	1.77	2175	2.03	2278	2.30	2379	2.58	2478	2.88	2578	3.21	2677	3.55
2580	2000	1864	1.35	1986	1.61	2103	1.88	2212	2.16	2314	2.44	2411	2.72	2506	3.02	2601	3.34	2696	3.68
2838	2200	1953	1.58	2068	1.84	2179	2.13	2286	2.43	2388	2.73	2483	3.04	2574	3.34	2662	3.66	2748	3.99
3096	2400	2048	1.84	2156	2.11	2261	2.41	2363	2.72	2462	3.04	2557	3.37	2648	3.71	2733	4.04	2816	4.38
3354	2600	2147	2.13	2249	2.42	2349	2.73	2446	3.04	2540	3.38	2633	3.73	2722	4.09	2807	4.45	2890	4.81
3612	2800	2249	2.46	2346	2.78	2441	3.09	2533	3.42	2623	3.76	2712	4.12	2798	4.49	2882	4.87	2963	5.26
3870	3000	2356	2.83	2447	3.16	2537	3.50	2625	3.84	2711	4.19	2795	4.56	2878	4.94	2959	5.33	3039	5.74
4128	3200	2465	3.24	2552	3.59	2637	3.95	2721	4.31	2803	4.68	2884	5.05	2963	5.44	3041	5.84	3118	6.25
4386	3400	2576	3.70	2659	4.07	2740	4.45	2820	4.83	2898	5.21	2976	5.60	3052	5.99	3127	6.40	3200	6.82
4644	3600	2690	4.21	2768	4.60	2845	4.99	2922	5.39	2997	5.79	3071	6.20	3144	6.61	3217	7.02		
4902	3800	2804	4.76	2880	5.17	2954	5.58	3026	6.00	3098	6.42	3170	6.84	3240	7.28				
5160	4000	2920	5.36	2993	5.80	3064	6.23	3134	6.66	3202	7.10	3271	7.55						

CFM	O.V.	6 1/2" SP		7" SP		7 1/2" SP		8" S	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
2838	2200	2835	4.33	2921	4.69	3007	5.08	3092	5.48
3096	2400	2897	4.72	2976	5.07	3055	5.44	3134	5.83
3354	2600	2968	5.17	3044	5.53	3119	5.90	3193	6.28
3612	2800	3042	5.65	3118	6.04	3191	6.43	3262	6.82
3870	3000	3116	6.15	3192	6.57	3265	6.98		
4128	3200	3193	6.68	3267	7.12				
4386	3400	3273	7.26						

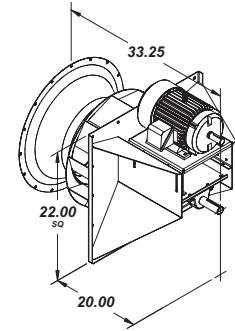
- Notes:
- 1) Power rating (BHP) does not include belt drive losses.
 - 2) Bold figures indicate maximum static efficiency.
 - 3) Single Width, Single Inlet.

Performance Data

VSP - VersaPlug Fan

165

Class	Max. Unit RPM
I	2376
II	3100



Wheel Diameter = 16.5 in.
Inlet Area = 1.670 sq. ft.
Tip Speed, FPM = 4.32 x RPM
Maximum BHP = .349 x (RPM/1000) ³

CFM	O.V.	1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		7/8" SP		1" SP		1 1/4" SP		1 1/2" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1256	800	637	0.09	709	0.12	775	0.15	835	0.18	890	0.22	944	0.26	997	0.30	1102	0.39	1200	0.49
1413	900	681	0.11	747	0.14	810	0.18	868	0.21	922	0.25	972	0.29	1021	0.33	1116	0.42	1210	0.52
1570	1000	728	0.13	789	0.17	847	0.20	903	0.24	956	0.28	1006	0.33	1052	0.37	1139	0.46	1225	0.56
1727	1100	777	0.16	833	0.20	888	0.24	940	0.28	991	0.32	1039	0.37	1085	0.41	1170	0.51	1249	0.60
1884	1200	827	0.20	880	0.24	931	0.28	980	0.32	1028	0.36	1074	0.41	1119	0.46	1203	0.56	1280	0.66
2041	1300	879	0.24	928	0.28	976	0.32	1022	0.37	1068	0.41	1112	0.46	1155	0.51	1237	0.62	1313	0.73
2198	1400	931	0.28	978	0.33	1022	0.37	1067	0.42	1110	0.47	1152	0.52	1192	0.57	1272	0.68	1347	0.80
2355	1500	984	0.33	1028	0.38	1071	0.43	1112	0.48	1153	0.53	1193	0.58	1232	0.63	1308	0.75	1381	0.87
2512	1600	1038	0.39	1080	0.44	1121	0.49	1160	0.54	1199	0.60	1237	0.65	1274	0.71	1347	0.82	1417	0.95
2669	1700	1092	0.45	1132	0.50	1171	0.56	1209	0.62	1245	0.67	1282	0.73	1317	0.79	1387	0.91	1455	1.03
2826	1800	1147	0.52	1185	0.58	1223	0.64	1258	0.70	1293	0.75	1328	0.81	1362	0.88	1429	1.00	1494	1.13
2983	1900	1202	0.59	1239	0.66	1275	0.72	1309	0.78	1343	0.84	1376	0.91	1408	0.97	1473	1.10	1535	1.23
3140	2000	1247	0.68	1293	0.74	1327	0.81	1360	0.88	1393	0.94	1424	1.01	1456	1.07	1517	1.21	1578	1.35
3454	2200	1369	0.87	1402	0.94	1434	1.02	1465	1.09	1495	1.16	1524	1.24	1553	1.31	1610	1.45	1666	1.60
3768	2400	1482	1.10	1512	1.18	1542	1.26	1571	1.34	1599	1.42	1627	1.50	1654	1.58	1707	1.74	1759	1.90
4082	2600	1596	1.37	1624	1.46	1652	1.54	1679	1.63	1705	1.72	1732	1.80	1757	1.89	1807	2.06	1856	2.23
4396	2800	1710	1.68	1737	1.77	1762	1.87	1788	1.96	1813	2.05	1838	2.15	1862	2.24	1909	2.42	1955	2.61
4710	3000	1825	2.04	1850	2.14	1874	2.24	1898	2.34	1922	2.44	1945	2.54	1968	2.64	2013	2.84	2057	3.03
5024	3200	1940	2.44	1964	2.55	1987	2.65	2009	2.76	2031	2.87	2054	2.98	2075	3.08	2118	3.30	2160	3.51
5338	3400	2056	2.90	2078	3.01	2100	3.13	2121	3.24	2142	3.35	2163	3.47	2184	3.58	2225	3.81	2265	4.03

CFM	O.V.	2" SP		2 1/2" SP		3" SP		3 1/2" SP		4" SP		4 1/2" SP		5" SP		5 1/2" SP		6" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1884	1200	1425	0.88	1567	1.14	1703	1.43	1833	1.73										
2041	1300	1451	0.95	1584	1.20	1714	1.49	1840	1.80	1960	2.13	2077	2.47						
2198	1400	1483	1.03	1607	1.28	1730	1.56	1851	1.88	1968	2.21	2080	2.56	2189	2.93				
2355	1500	1516	1.12	1637	1.37	1752	1.65	1867	1.96	1979	2.29	2089	2.65	2194	3.02	2297	3.41	2398	3.81
2512	1600	1550	1.21	1669	1.48	1780	1.75	1888	2.05	1995	2.39	2101	2.75	2204	3.13	2304	3.52	2401	3.92
2669	1700	1584	1.30	1703	1.59	1811	1.88	1914	2.17	2015	2.50	2117	2.85	2216	3.23	2314	3.63	2409	4.05
2826	1800	1619	1.41	1737	1.70	1844	2.01	1945	2.31	2041	2.63	2137	2.98	2232	3.35	2327	3.75	2419	4.17
2983	1900	1656	1.51	1771	1.82	1878	2.14	1977	2.46	2071	2.78	2162	3.12	2253	3.49	2344	3.88	2433	4.30
3140	2000	1694	1.63	1806	1.95	1912	2.28	2011	2.62	2103	2.95	2192	3.29	2279	3.65	2365	4.04	2451	4.45
3454	2200	1775	1.91	1880	2.23	1981	2.57	2079	2.94	2171	3.31	2257	3.68	2340	4.05	2420	4.43	2499	4.82
3768	2400	1861	2.22	1960	2.56	2056	2.91	2149	3.29	2239	3.68	2325	4.08	2407	4.49	2485	4.89	2560	5.30
4082	2600	1951	2.58	2045	2.93	2135	3.30	2223	3.68	2309	4.09	2393	4.51	2474	4.95	2552	5.38	2627	5.82
4396	2800	2045	2.98	2133	3.36	2219	3.74	2303	4.14	2385	4.55	2465	4.99	2544	5.44	2620	5.90	2694	6.37
4710	3000	2142	3.43	2225	3.83	2307	4.24	2387	4.65	2465	5.07	2541	5.51	2616	5.97	2690	6.45	2763	6.94
5024	3200	2241	3.93	2320	4.35	2397	4.78	2473	5.22	2548	5.66	2622	6.11	2694	6.58	2764	7.06	2834	7.57
5338	3400	2342	4.48	2417	4.93	2491	5.38	2563	5.84	2635	6.30	2705	6.77	2775	7.25	2843	7.74	2909	8.25
5652	3600	2445	5.09	2517	5.56	2587	6.04	2656	6.52	2725	7.01	2792	7.50	2859	7.99	2924	8.50		
5966	3800	2549	5.76	2618	6.26	2685	6.75	2751	7.26	2817	7.77	2881	8.29	2945	8.80				
6280	4000	2654	6.49	2721	7.01	2785	7.54	2849	8.06	2911	8.60	2973	9.14						

CFM	O.V.	6 1/2" SP		7" SP		7 1/2" SP		8" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
3454	2200	2577	5.24	2655	5.68	2733	6.14	2811	6.63
3768	2400	2633	5.71	2706	6.14	2777	6.59	2849	7.05
4082	2600	2698	6.26	2768	6.70	2835	7.14	2902	7.60
4396	2800	2766	6.84	2834	7.31	2901	7.78	2965	8.25
4710	3000	2833	7.44	2902	7.94	2968	8.45		
5024	3200	2903	8.06	2970	8.61				
5338	3400	2975	8.78						

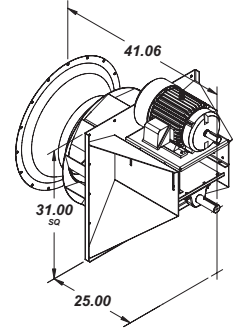
Notes: 1) Power rating (BHP) does not include belt drive losses.
 2) Bold figures indicate maximum static efficiency.
 3) Single Width, Single Inlet.

Performance Data

VSP - VersaPlug Fan

200

Class	Max. Unit RPM
I	1904
II	2475



Wheel Diameter = 20 in.
Inlet Area = 2.440 sq. ft.
Tip Speed, FPM = 5.23 x RPM
Maximum BHP = .900 x (RPM/1000) ³

CFM	O.V.	1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		7/8" SP		1" SP		1 1/4" SP		1 1/2" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1840	800	511	0.12	567	0.16	620	0.20	670	0.25	717	0.30	763	0.35	808	0.40	892	0.52		
2070	900	547	0.15	599	0.19	648	0.24	694	0.29	739	0.34	782	0.39	824	0.44	904	0.56	980	0.69
2300	1000	584	0.18	633	0.23	678	0.28	722	0.33	764	0.38	805	0.44	844	0.50	920	0.62	992	0.75
2530	1100	624	0.22	669	0.27	712	0.32	753	0.38	792	0.44	831	0.49	868	0.55	940	0.68	1009	0.82
2760	1200	664	0.26	706	0.32	747	0.38	786	0.43	823	0.49	860	0.56	895	0.62	963	0.75	1029	0.89
2990	1300	705	0.31	745	0.37	783	0.43	820	0.50	856	0.56	890	0.63	924	0.69	989	0.83	1052	0.97
3220	1400	747	0.36	785	0.43	821	0.50	856	0.57	890	0.64	923	0.70	955	0.77	1017	0.92	1077	1.07
3450	1500	790	0.43	826	0.50	860	0.57	893	0.64	926	0.72	957	0.79	988	0.86	1047	1.01	1105	1.17
3680	1600	834	0.50	867	0.57	900	0.65	932	0.73	962	0.81	992	0.88	1022	0.96	1079	1.12	1134	1.28
3910	1700	877	0.57	909	0.66	940	0.74	971	0.82	1000	0.90	1029	0.99	1057	1.07	1112	1.23	1165	1.40
4140	1800	922	0.66	952	0.75	982	0.84	1011	0.92	1039	1.01	1067	1.10	1094	1.18	1146	1.36	1198	1.53
4370	1900	966	0.75	995	0.85	1024	0.94	1051	1.03	1078	1.13	1105	1.22	1131	1.31	1182	1.49	1231	1.68
4600	2000	1011	0.85	1039	0.95	1066	1.05	1092	1.15	1119	1.25	1144	1.35	1169	1.44	1218	1.64	1266	1.83
5060	2200	1101	1.09	1127	1.20	1152	1.31	1176	1.42	1201	1.53	1224	1.64	1248	1.74	1293	1.95	1338	2.17
5520	2400	1192	1.36	1216	1.49	1239	1.61	1262	1.73	1284	1.85	1307	1.97	1328	2.09	1371	2.32	1413	2.55
5980	2600	1284	1.68	1306	1.82	1328	1.95	1349	2.09	1370	2.22	1391	2.35	1411	2.48	1451	2.73	1491	2.98
6440	2800	1376	2.05	1397	2.20	1417	2.35	1437	2.49	1457	2.64	1476	2.78	1495	2.92	1533	3.19	1571	3.46
6900	3000	1469	2.48	1488	2.64	1507	2.80	1526	2.95	1544	3.11	1563	3.26	1581	3.41	1617	3.71	1652	4.00
7360	3200	1562	2.96	1580	3.13	1598	3.30	1616	3.47	1633	3.63	1650	3.80	1668	3.96	1702	4.28	1735	4.60
7820	3400	1654	3.49	1672	3.68	1689	3.87	1706	4.05	1722	4.22	1739	4.40	1755	4.57	1788	4.92	1819	5.25

CFM	O.V.	2" SP		2 1/2" SP		3" SP		3 1/2" SP		4" SP		4 1/2" SP		5" SP		5 1/2" SP		6" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
2760	1200	1153	1.19	1269	1.53	1380	1.89												
2990	1300	1171	1.28	1282	1.62	1389	1.99	1490	2.39										
3220	1400	1191	1.39	1299	1.73	1401	2.10	1500	2.50	1594	2.93								
3450	1500	1214	1.50	1318	1.85	1417	2.23	1512	2.63	1604	3.06	1692	3.52						
3680	1600	1240	1.62	1340	1.98	1435	2.37	1527	2.78	1616	3.21	1702	3.67	1785	4.15				
3910	1700	1267	1.76	1363	2.13	1456	2.52	1545	2.94	1631	3.38	1714	3.84	1795	4.32	1874	4.83	1951	5.36
4140	1800	1296	1.90	1389	2.28	1478	2.69	1565	3.11	1648	3.56	1729	4.02	1808	4.51	1885	5.02	1960	5.55
4370	1900	1326	2.06	1416	2.45	1503	2.87	1587	3.30	1668	3.75	1747	4.22	1823	4.72	1898	5.23	1971	5.76
4600	2000	1357	2.22	1445	2.63	1529	3.06	1610	3.50	1689	3.96	1766	4.44	1841	4.94	1914	5.46	1985	6.00
5060	2200	1424	2.59	1506	3.03	1585	3.48	1662	3.95	1737	4.43	1810	4.92	1881	5.44	1950	5.97	2018	6.52
5520	2400	1497	3.01	1572	3.48	1647	3.96	1720	4.45	1790	4.95	1860	5.47	1927	6.01	1993	6.55	2058	7.12
5980	2600	1567	3.48	1641	3.98	1712	4.49	1781	5.01	1849	5.54	1915	6.08	1979	6.64	2042	7.21	2104	7.79
6440	2800	1643	4.00	1713	4.54	1780	5.08	1846	5.63	1911	6.19	1974	6.76	2035	7.34	2096	7.93	2155	8.54
6900	3000	1721	4.58	1787	5.16	1852	5.74	1915	6.32	1976	6.91	2036	7.50	2095	8.11	2153	8.73	2210	9.36
7360	3200	1800	5.22	1864	5.84	1925	6.45	1985	7.07	2044	7.69	2102	8.32	2159	8.95	2214	9.60	2269	10.25
7850	3400	1881	5.92	1942	6.58	2001	7.23	2058	7.89	2115	8.54	2170	9.20	2225	9.87	2278	10.54	2331	11.23
8280	3600	1964	6.69	2022	7.39	2078	8.08	2134	8.77	2188	9.47	2241	10.16	2293	10.86	2345	11.57	2396	12.28
8740	3800	2048	7.52	2103	8.27	2157	9.00	2210	9.74	2262	10.47	2314	11.20	2364	11.93	2414	12.67	2463	13.41
9200	4000	2132	8.43	2185	9.22	2238	10.00	2289	10.77	2339	11.54	2388	12.31	2437	13.08	2485	13.85		

CFM	O.V.	6 1/2" SP		7" SP		7 1/2" SP		8" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
5060	2200	2085	7.09	2150	7.67	2214	8.27	2277	8.89
5520	2400	2122	7.70	2184	8.30	2246	8.91	2306	9.54
5980	2600	2165	8.39	2225	9.00	2284	9.63	2342	10.27
6440	2800	2213	9.15	2271	9.78	2327	10.43	2383	11.08
6900	3000	2266	9.99	2321	10.65	2376	11.31	2429	11.98
7360	3200	2323	10.92	2376	11.59	2428	12.27	2480	12.97
7820	3400	2383	11.92	2434	12.61	2484	13.32		
8280	3600	2446	13.00						

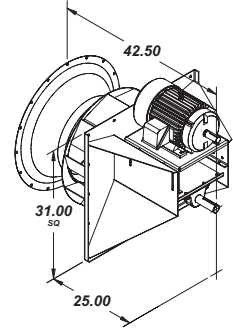
Notes: 1) Power rating (BHP) does not include belt drive losses.
 2) Bold figures indicate maximum static efficiency.
 3) Single Width, Single Inlet.

Performance Data

VersaPlug Fan - VSP

222

Class	Max. Unit RPM
I	1708
II	2228



Wheel Diameter = 22.25 in.
Inlet Area = 3.020 sq. ft.
Tip Speed, FPM = 5.83 x RPM
Maximum BHP = 1.535 x (RPM/1000) ³

CFM	O.V.	1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		7/8" SP		1" SP		1 1/4" SP		1 1/2" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
2280	800	459	0.15	509	0.20	557	0.25	602	0.31	645	0.37	686	0.43	726	0.50	802	0.64		
2565	900	491	0.18	538	0.24	582	0.29	624	0.35	664	0.42	703	0.48	741	0.55	812	0.70	881	0.86
2850	1000	525	0.22	569	0.28	610	0.34	649	0.41	687	0.47	723	0.54	759	0.61	827	0.76	892	0.93
3135	1100	560	0.27	601	0.34	640	0.40	677	0.47	712	0.54	747	0.61	780	0.68	845	0.84	907	1.01
3420	1200	597	0.32	635	0.39	671	0.47	706	0.54	740	0.61	773	0.69	804	0.77	866	0.93	925	1.10
3705	1300	634	0.38	670	0.46	704	0.54	737	0.62	769	0.69	800	0.78	831	0.86	889	1.03	945	1.21
3990	1400	672	0.45	706	0.54	738	0.62	769	0.70	800	0.79	830	0.87	858	0.96	914	1.14	968	1.32
4275	1500	710	0.53	742	0.62	773	0.71	803	0.80	832	0.89	860	0.98	888	1.07	941	1.25	993	1.45
4560	1600	749	0.61	780	0.71	809	0.81	837	0.90	865	1.00	892	1.09	918	1.19	971	1.39	1019	1.59
4845	1700	789	0.71	817	0.81	845	0.92	872	1.02	899	1.12	925	1.22	950	1.32	1000	1.53	1047	1.74
5130	1800	828	0.81	856	0.92	882	1.03	908	1.14	934	1.25	959	1.36	983	1.46	1030	1.68	1076	1.90
5415	1900	868	0.93	894	1.05	920	1.16	945	1.28	969	1.39	993	1.51	1017	1.62	1062	1.85	1107	2.07
5700	2000	909	1.05	934	1.18	958	1.30	982	1.43	1005	1.55	1028	1.67	1051	1.79	1095	2.02	1138	2.26
6270	2200	990	1.34	1013	1.48	1035	1.62	1057	1.76	1079	1.89	1100	2.02	1121	2.16	1163	2.42	1203	2.68
6840	2400	1072	1.68	1093	1.84	1114	1.99	1134	2.14	1155	2.29	1174	2.44	1194	2.58	1233	2.87	1270	3.15
7410	2600	1154	2.08	1174	2.25	1193	2.42	1212	2.58	1231	2.75	1250	2.91	1268	3.06	1305	3.38	1340	3.69
7980	2800	1237	2.54	1255	2.73	1274	2.91	1292	3.09	1309	3.29	1327	3.44	1344	3.61	1378	3.95	1412	4.29
8550	3000	1320	3.07	1338	3.27	1355	3.46	1372	3.65	1388	3.84	1405	4.03	1421	4.22	1453	4.59	1485	4.95
9120	3200	1404	3.66	1420	3.88	1436	4.09	1452	4.29	1468	4.50	1484	4.70	1499	4.90	1530	5.30	1560	5.69
9690	3400	1487	4.33	1503	4.56	1518	4.79	1533	5.01	1548	5.23	1563	5.44	1578	5.66	1607	6.08	1635	6.50

CFM	O.V.	2" SP		2 1/2" SP		3" SP		3 1/2" SP		4" SP		4 1/2" SP		5" SP		5 1/2" SP		6" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
3420	1200	1036	1.48	1141	1.89	1240	2.34												
3705	1300	1052	1.59	1153	2.01	1248	2.46	1340	2.96										
3990	1400	1071	1.71	1167	2.14	1260	2.60	1348	3.10	1433	3.63								
4275	1500	1091	1.85	1185	2.29	1274	2.76	1359	3.26	1441	3.79	1521	4.35						
4560	1600	1114	2.01	1204	2.45	1290	2.93	1373	3.44	1452	3.98	1530	4.54	1605	5.14				
4845	1700	1139	2.17	1225	2.63	1309	3.12	1389	3.64	1466	4.18	1541	4.75	1614	5.35	1685	5.97	1754	6.63
5130	1800	1164	2.35	1248	2.83	1329	3.33	1407	3.85	1482	4.40	1554	4.98	1625	5.58	1694	6.21	1762	6.87
5415	1900	1192	2.54	1273	3.03	1351	3.55	1426	4.08	1499	4.64	1570	5.23	1639	5.84	1706	6.47	1772	7.13
5700	2000	1220	2.75	1299	3.26	1374	3.78	1447	4.33	1518	4.90	1587	5.50	1655	6.12	1720	6.76	1784	7.42
6270	2200	1280	3.21	1354	3.75	1425	4.31	1494	4.88	1561	5.48	1627	6.10	1691	6.73	1753	7.39	1814	8.07
6840	2400	1343	3.73	1413	4.31	1480	4.90	1546	5.51	1609	6.13	1672	6.77	1732	7.43	1792	8.11	1850	8.81
7410	2600	1409	4.31	1475	4.93	1539	5.56	1601	6.20	1662	6.86	1721	7.53	1779	8.22	1836	8.92	1891	9.64
7980	2800	1477	4.95	1539	5.62	1600	6.29	1660	6.97	1717	7.66	1774	8.37	1829	9.08	1884	9.82	1937	10.56
8550	3000	1547	5.67	1606	6.38	1664	7.10	1721	7.82	1776	8.55	1830	9.29	1883	10.04	1935	10.80	1987	11.58
9120	3200	1618	6.46	1675	7.22	1730	7.98	1785	8.75	1837	9.52	1889	10.30	1940	11.08	1990	11.88	2039	12.69
9690	3400	1691	7.33	1745	8.14	1798	8.95	1850	9.76	1901	10.57	1951	11.39	2000	12.22	2048	13.05	2095	13.89
10260	3600	1765	8.28	1817	9.14	1868	10.00	1918	10.86	1967	11.72	2014	12.58	2061	13.44	2108	14.32	2153	15.20
10830	3800	1840	9.31	1890	10.23	1939	11.14	1987	12.05	2034	12.95	2080	13.86	2125	14.77	2170	15.68	2214	16.60
11400	4000	1917	10.44	1964	11.41	2011	12.38	2057	13.33	2102	14.28	2147	15.24	2190	16.19	2233	17.15		

CFM	O.V.	6 1/2" SP		7" SP		7 1/2" SP		8" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
6270	2200	1874	8.77	1933	9.50	1990	10.24	2047	11.01
6840	2400	1907	9.53	1963	10.27	2019	11.02	2073	11.80
7410	2600	1946	10.38	2000	11.14	2053	11.91	2105	12.71
7980	2800	1989	11.33	2041	12.11	2092	12.90	2142	13.72
8550	3000	2037	12.37	2086	13.18	2135	14.00	2183	14.83
9120	3200	2088	13.51	2136	14.34	2183	15.19	2229	16.05
9690	3400	2142	14.75	2188	15.61	2233	16.49		
10260	3600	2198	16.09						

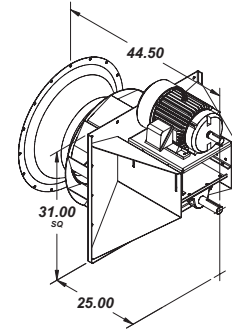
- Notes:
- 1) Power rating (BHP) does not include belt drive losses.
 - 2) Bold figures indicate maximum static efficiency.
 - 3) Single Width, Single Inlet.

Performance Data

VSP - VersaPlug Fan

245

Class	Max. Unit RPM
I	1551
II	2028



Wheel Diameter = 24.5 in
Inlet Area = 3.640 sq. ft.
Tip Speed, FPM = 6.41 x RPM
Maximum BHP = 2.485 x (RPM/1000) ³

CFM	O.V.	1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		7/8" SP		1" SP		1 1/4" SP		1 1/2" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
2760	800	417	0.18	463	0.24	506	0.30	546	0.37	586	0.44	623	0.52	659	0.60	728	0.78		
3105	900	446	0.22	488	0.29	528	0.36	567	0.43	603	0.50	638	0.58	673	0.67	738	0.85	800	1.04
3450	1000	477	0.27	516	0.34	554	0.42	589	0.49	624	0.57	657	0.66	689	0.74	751	0.93	810	1.12
3795	1100	509	0.33	546	0.41	581	0.49	614	0.57	647	0.65	678	0.74	709	0.83	767	1.02	823	1.22
4140	1200	542	0.39	576	0.48	609	0.56	641	0.65	672	0.74	702	0.83	731	0.93	786	1.13	840	1.34
4485	1300	576	0.46	608	0.56	639	0.65	669	0.75	698	0.84	727	0.94	754	1.04	807	1.25	859	1.46
4830	1400	610	0.55	641	0.65	670	0.75	699	0.85	726	0.95	753	1.06	780	1.16	830	1.38	879	1.60
5175	1500	645	0.64	674	0.75	702	0.86	729	0.97	755	1.08	781	1.19	806	1.30	855	1.52	902	1.75
5520	1600	680	0.74	708	0.86	734	0.98	760	1.09	785	1.21	810	1.33	834	1.44	881	1.68	926	1.92
5865	1700	716	0.86	742	0.99	768	1.11	792	1.23	816	1.36	840	1.48	863	1.60	908	1.85	951	2.11
6210	1800	752	0.98	777	1.12	801	1.25	825	1.39	848	1.52	871	1.65	893	1.78	936	2.04	977	2.30
6555	1900	789	1.12	812	1.27	835	1.41	858	1.55	880	1.69	902	1.83	923	1.96	965	2.24	1005	2.52
6900	2000	825	1.28	848	1.43	870	1.58	892	1.73	913	1.88	934	2.02	954	2.16	994	2.45	1033	2.74
7590	2200	899	1.63	920	1.80	940	1.97	960	2.13	980	2.29	999	2.46	1018	2.61	1056	2.93	1092	3.25
8280	2400	973	2.04	992	2.23	1011	2.42	1030	2.60	1048	2.78	1067	2.95	1084	3.13	1119	3.48	1153	3.82
8970	2600	1048	2.52	1066	2.73	1084	2.93	1101	3.13	1118	3.33	1135	3.52	1152	3.71	1185	4.09	1217	4.47
9660	2800	1123	3.08	1140	3.31	1157	3.52	1173	3.74	1189	3.95	1205	4.17	1221	4.37	1252	4.79	1282	5.20
10350	3000	1199	3.72	1215	3.96	1230	4.20	1246	4.43	1261	4.66	1276	4.89	1291	5.12	1320	5.56	1349	6.00
11040	3200	1275	4.44	1290	4.70	1304	4.95	1319	5.21	1333	5.45	1347	5.70	1361	5.94	1389	6.42	1416	6.90
11730	3400	1350	5.24	1365	5.53	1379	5.80	1392	6.07	1406	6.34	1419	6.60	1433	6.86	1459	7.38	1485	7.88

CFM	O.V.	2" SP		2 1/2" SP		3" SP		3 1/2" SP		4" SP		4 1/2" SP		5" SP		5 1/2" SP		6" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
4140	1200	941	1.79	1036	2.29	1126	2.84												
4485	1300	955	1.93	1047	2.43	1134	2.99	1217	3.58										
4830	1400	972	2.08	1060	2.60	1144	3.16	1224	3.76	1301	4.40								
5175	1500	991	2.25	1076	2.78	1157	3.35	1234	3.95	1309	4.60	1381	5.28						
5520	1600	1012	2.43	1093	2.98	1172	3.56	1247	4.17	1319	4.82	1389	5.51	1457	6.23				
5865	1700	1034	2.63	1113	3.19	1188	3.78	1261	4.41	1331	5.07	1399	5.76	1466	6.48	1530	7.24	1593	8.04
6210	1800	1057	2.85	1134	3.43	1207	4.03	1277	4.67	1346	5.34	1412	6.04	1476	6.77	1539	7.53	1600	8.33
6555	1900	1082	3.09	1156	3.68	1227	4.30	1295	4.95	1361	5.63	1426	6.34	1488	7.08	1550	7.85	1609	8.65
6900	2000	1108	3.34	1179	3.95	1248	4.59	1315	5.25	1379	5.95	1442	6.67	1503	7.42	1562	8.19	1620	9.00
7590	2200	1162	3.89	1229	4.55	1294	5.22	1357	5.92	1418	6.64	1477	7.39	1535	8.16	1592	8.96	1647	9.79
8280	2400	1219	4.52	1283	5.22	1344	5.94	1404	6.68	1462	7.43	1518	8.21	1573	9.01	1627	9.84	1680	10.68
8970	2600	1279	5.22	1339	5.98	1397	6.74	1454	7.52	1509	8.31	1563	9.13	1615	9.96	1667	10.82	1718	11.69
9660	2800	1341	6.01	1398	6.81	1453	7.63	1507	8.45	1560	9.29	1611	10.14	1661	11.01	1711	11.90	1759	12.81
10350	3000	1404	6.87	1459	7.74	1511	8.61	1563	9.48	1613	10.37	1662	11.26	1710	12.17	1758	13.10	1804	14.04
11040	3200	1469	7.83	1521	8.76	1571	9.68	1621	10.61	1669	11.54	1716	12.48	1762	13.44	1807	14.40	1852	15.38
11730	3400	1536	8.88	1585	9.87	1633	10.85	1680	11.83	1726	12.82	1772	13.81	1816	14.81	1860	15.82	1903	16.84
12420	3600	1603	10.04	1650	11.09	1696	12.13	1742	13.17	1786	14.21	1829	15.25	1872	16.30	1914	17.36	1955	18.42
13110	3800	1671	11.29	1717	12.41	1761	13.51	1804	14.61	1847	15.70	1889	16.80	1930	17.90	1970	19.01	2010	20.13
13800	4000	1741	12.66	1784	13.84	1826	15.01	1868	16.17	1909	17.32	1950	18.47	1989	19.63	2028	20.79		

CFM	O.V.	6 1/2" SP		7" SP		7 1/2" SP		8" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
7590	2200	1702	10.64	1755	11.51	1807	12.42	1859	13.34
8280	2400	1732	11.55	1783	12.45	1833	13.37	1882	14.31
8970	2600	1767	12.59	1816	13.50	1864	14.44	1911	15.41
9660	2800	1807	13.73	1854	14.68	1900	15.65	1945	16.63
10350	3000	1850	15.00	1895	15.98	1939	16.97	1983	17.98
11040	3200	1896	16.38	1939	17.39	1982	18.42	2024	19.46
11730	3400	1945	17.88	1987	18.93	2028	19.99		
12420	3600	1996	19.50						

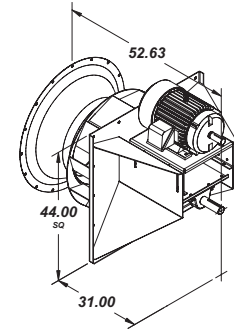
- Notes:
- 1) Power rating (BHP) does not include belt drive losses.
 - 2) Bold figures indicate maximum static efficiency.
 - 3) Single Width, Single Inlet.

Performance Data

VersaPlug Fan - VSP

270

Class	Max. Unit RPM
I	1384
II	1803



Wheel Diameter = 27 in.
Inlet Area = 4.350 sq. ft.
Tip Speed, FPM = 7.075 x RPM
Maximum BHP = 4.200 x (RPM/1000) ³

CFM	O.V.	1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		7/8" SP		1" SP		1 1/4" SP		1 1/2" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
3352	800	366	0.20	408	0.28	448	0.36	486	0.44	523	0.54	558	0.63	592	0.73	657	0.94		
3771	900	391	0.25	429	0.33	466	0.41	502	0.50	536	0.60	569	0.70	601	0.81	663	1.03	721	1.26
4190	1000	418	0.31	453	0.39	487	0.48	520	0.57	552	0.67	583	0.78	614	0.89	672	1.12	727	1.37
4609	1100	446	0.37	478	0.46	510	0.55	541	0.65	571	0.76	600	0.87	628	0.98	684	1.22	736	1.48
5028	1200	475	0.45	505	0.54	534	0.64	563	0.74	591	0.85	619	0.97	646	1.09	698	1.34	748	1.60
5447	1300	505	0.53	533	0.63	560	0.74	587	0.85	613	0.96	639	1.08	665	1.20	714	1.46	762	1.74
5866	1400	536	0.63	562	0.74	587	0.85	612	0.96	637	1.08	662	1.21	686	1.33	733	1.60	779	1.88
6285	1500	567	0.74	591	0.86	615	0.97	639	1.09	662	1.22	685	1.35	708	1.48	753	1.76	796	2.05
6704	1600	598	0.87	621	0.99	644	1.11	666	1.24	688	1.37	710	1.50	732	1.64	774	1.93	816	2.23
7123	1700	630	1.01	652	1.13	673	1.27	694	1.40	715	1.53	736	1.67	757	1.82	797	2.11	837	2.42
7542	1800	662	1.16	683	1.30	703	1.43	723	1.57	743	1.72	763	1.86	782	2.01	821	2.32	859	2.63
7961	1900	695	1.34	714	1.48	733	1.62	752	1.77	771	1.92	790	2.07	809	2.22	846	2.54	882	2.87
8380	2000	727	1.53	746	1.67	764	1.82	782	1.98	800	2.13	818	2.29	836	2.45	871	2.78	906	3.12
9218	2200	793	1.96	810	2.13	827	2.29	843	2.46	860	2.62	876	2.79	892	2.97	925	3.32	957	3.68
10056	2400	859	2.48	875	2.66	890	2.84	905	3.02	921	3.20	936	3.38	951	3.57	981	3.94	1011	4.33
10894	2600	926	3.08	940	3.28	954	3.47	969	3.66	983	3.86	997	4.06	1011	4.26	1039	4.66	1066	5.07
11732	2800	993	3.79	1006	3.99	1020	4.20	1033	4.41	1046	4.62	1059	4.83	1072	5.04	1098	5.47	1124	5.90
12570	3000	1060	4.59	1073	4.81	1085	5.04	1097	5.26	1110	5.48	1122	5.71	1134	5.93	1158	6.39	1183	6.85
13408	3200	1128	5.51	1139	5.74	1151	5.98	1163	6.22	1174	6.46	1186	6.70	1197	6.93	1220	7.42	1243	7.90
14246	3400	1196	6.54	1207	6.79	1217	7.05	1228	7.30	1239	7.55	1250	7.80	1261	8.06	1282	8.57	1304	9.08

CFM	O.V.	2" SP		2 1/2" SP		3" SP		3 1/2" SP		4" SP		4 1/2" SP		5" SP		5 1/2" SP		6" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
5028	1200	843	2.17	932	2.78														
5447	1300	854	2.32	940	2.95	1021	3.62												
5866	1400	866	2.49	949	3.14	1027	3.83	1102	4.55	1174	5.29								
6285	1500	880	2.67	960	3.34	1036	4.05	1109	4.80	1179	5.57	1246	6.36						
6704	1600	896	2.87	973	3.56	1047	4.29	1117	5.05	1185	5.85	1251	6.67	1314	7.52				
7123	1700	914	3.08	988	3.79	1059	4.54	1127	5.32	1193	6.14	1257	6.99	1319	7.86	1379	8.75		
7542	1800	933	3.31	1004	4.03	1073	4.80	1139	5.61	1203	6.45	1265	7.32	1326	8.22	1384	9.14	1442	10.08
7961	1900	953	3.56	1022	4.30	1088	5.09	1152	5.91	1215	6.77	1275	7.66	1334	8.58	1391	9.53	1447	10.49
8380	2000	974	3.83	1041	4.59	1105	5.39	1167	6.23	1228	7.11	1287	8.02	1344	8.96	1400	9.93	1455	10.92
9218	2200	1020	4.43	1082	5.23	1142	6.06	1200	6.94	1257	7.85	1313	8.80	1368	9.78	1421	10.79	1473	11.83
10056	2400	1069	5.12	1127	5.96	1183	6.83	1238	7.74	1292	8.69	1345	9.67	1396	10.69	1447	11.73	1497	12.81
10894	2600	1121	5.91	1175	6.78	1227	7.70	1279	8.64	1330	9.63	1380	10.64	1429	11.69	1478	12.77	1525	13.88
11732	2800	1175	6.79	1225	7.71	1275	8.67	1324	9.65	1372	10.67	1420	11.72	1466	12.81	1512	13.92	1558	15.07
12570	3000	1231	7.79	1278	8.75	1325	9.75	1371	10.78	1417	11.83	1462	12.92	1506	14.04	1550	15.19	1593	16.37
13408	3200	1288	8.89	1333	9.91	1377	10.95	1421	12.02	1464	13.12	1507	14.25	1549	15.40	1591	16.59	1632	17.80
14246	3400	1347	10.12	1389	11.19	1431	12.28	1473	13.39	1514	14.53	1554	15.70	1595	16.89	1635	18.11	1674	19.36
15084	3600	1406	11.48	1447	12.59	1486	13.73	1526	14.89	1565	16.08	1604	17.29	1642	18.52	1681	19.78	1718	21.07
15922	3800	1467	12.97	1505	14.14	1543	15.32	1581	16.53	1618	17.76	1655	19.02	1692	20.29	1729	21.60	1765	22.92
16760	4000	1529	14.60	1565	15.82	1601	17.06	1637	18.32	1673	19.60	1708	20.89	1743	22.22	1778	23.56		

CFM	O.V.	6 1/2" SP		7" SP		7 1/2" SP		8" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
9218	2200	1524	12.89	1574	13.97	1624	15.07	1672	16.19
10056	2400	1546	13.91	1594	15.03	1641	16.18	1687	17.35
10894	2600	1572	15.02	1618	16.18	1663	17.37	1708	18.58
11732	2800	1602	16.24	1646	17.44	1690	18.67	1733	19.91
12570	3000	1636	17.58	1678	18.81	1720	20.07	1761	21.36
13408	3200	1673	19.04	1714	20.31	1754	21.60	1793	22.92
14246	3400	1713	20.64	1752	21.94	1790	23.27		
15084	3600	1756	22.28	1793	23.72				

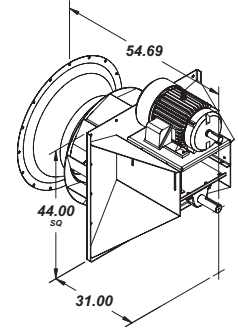
- Notes: 1) Power rating (BHP) does not include belt drive losses.
 2) Bold figures indicate maximum static efficiency.
 3) Single Width, Single Inlet.

Performance Data

VSP - VersaPlug Fan

300

Class	Max. Unit RPM
I	1247
II	1622



Wheel Diameter = 30 in.
Inlet Area = 5.355 sq. ft.
Tip Speed, FPM = 7.86 x RPM
Maximum BHP = $7.111 \times (\text{RPM}/1000)^3$

CFM	O.V.	1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		7/8" SP		1" SP		1 1/4" SP		1 1/2" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
4136	800	329	0.25	367	0.34	403	0.44	438	0.55	471	0.66	502	0.78	533	0.90	591	1.16		
4653	900	352	0.31	386	0.41	419	0.51	452	0.62	482	0.74	512	0.87	541	1.00	596	1.27	648	1.55
5170	1000	376	0.38	408	0.48	438	0.59	468	0.71	497	0.83	525	0.96	552	1.10	605	1.38	654	1.69
5687	1100	401	0.46	430	0.57	459	0.68	486	0.81	513	0.94	540	1.07	566	1.21	615	1.51	663	1.82
6204	1200	428	0.55	454	0.67	481	0.79	507	0.92	532	1.05	557	1.19	581	1.34	628	1.65	673	1.98
6721	1300	455	0.66	480	0.78	504	0.91	528	1.05	552	1.19	575	1.33	598	1.49	643	1.80	686	2.14
7238	1400	482	0.78	505	0.91	528	1.05	551	1.19	573	1.34	595	1.49	617	1.65	660	1.98	701	2.33
7755	1500	510	0.92	532	1.06	554	1.20	575	1.35	596	1.50	617	1.66	637	1.83	678	2.17	717	2.53
8272	1600	538	1.07	559	1.22	579	1.37	599	1.53	619	1.69	639	1.85	659	2.02	697	2.38	734	2.75
8789	1700	567	1.24	586	1.40	606	1.56	625	1.73	644	1.89	662	2.07	681	2.24	717	2.61	753	2.99
9306	1800	596	1.44	614	1.60	633	1.77	651	1.94	669	2.12	686	2.30	704	2.48	739	2.86	773	3.25
9823	1900	625	1.65	643	1.82	660	2.00	677	2.18	694	2.36	711	2.55	728	2.74	761	3.13	794	3.54
10340	2000	655	1.88	671	2.07	688	2.25	704	2.44	720	2.63	736	2.83	752	3.02	784	3.43	816	3.85
11374	2200	714	2.42	729	2.62	744	2.83	759	3.03	774	3.24	788	3.45	803	3.66	832	4.09	861	4.54
12408	2400	773	3.06	787	3.28	801	3.50	815	3.72	828	3.95	842	4.17	856	4.40	883	4.87	909	5.34
13442	2600	833	3.81	846	4.05	859	4.28	872	4.52	884	4.77	897	5.01	910	5.25	935	5.75	960	6.25
14476	2800	894	4.68	906	4.93	918	5.19	929	5.44	941	5.70	953	5.96	965	6.22	988	6.75	1011	7.29
15510	3000	954	5.67	965	5.94	977	6.22	988	6.49	999	6.77	1010	7.05	1021	7.32	1043	7.89	1064	8.45
16544	3200	1015	6.80	1025	7.09	1036	7.38	1046	7.68	1057	7.97	1067	8.27	1077	8.56	1098	9.16	1118	9.76
17578	3400	1076	8.08	1086	8.39	1096	8.70	1105	9.01	1115	9.32	1125	9.63	1135	9.95	1154	10.58	1173	11.21

CFM	O.V.	2" SP		2 1/2" SP		3" SP		3 1/2" SP		4" SP		4 1/2" SP		5" SP		5 1/2" SP		6" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
6204	1200	759	2.68	839	3.43														
6721	1300	768	2.87	846	3.65	918	4.47												
7238	1400	779	3.07	854	3.88	925	4.73	992	5.62	1056	6.53								
7755	1500	792	3.30	864	4.12	932	5.00	998	5.92	1061	6.87	1121	7.85						
8272	1600	807	3.54	876	4.39	942	5.29	1005	6.24	1066	7.22	1125	8.24	1182	9.28				
8789	1700	822	3.80	889	4.67	953	5.60	1015	6.57	1074	7.58	1131	8.63	1187	9.71	1241	10.81		
9306	1800	839	4.09	904	4.98	965	5.93	1025	6.92	1083	7.96	1139	9.04	1193	10.14	1246	11.28	1297	12.44
9823	1900	858	4.39	919	5.31	979	6.28	1037	7.30	1093	8.36	1148	9.46	1201	10.60	1252	11.76	1303	12.96
10340	2000	877	4.73	936	5.66	994	6.65	1050	7.69	1105	8.78	1158	9.90	1210	11.07	1260	12.26	1309	13.48
11374	2200	918	5.47	973	6.45	1027	7.49	1080	8.57	1132	9.70	1182	10.87	1231	12.08	1279	13.32	1326	14.60
12408	2400	962	6.32	1014	7.35	1064	8.43	1114	9.56	1163	10.73	1210	11.94	1257	13.19	1303	14.48	1347	15.81
13442	2600	1009	7.29	1057	8.37	1105	9.50	1151	10.67	1197	11.88	1242	13.14	1286	14.44	1330	15.77	1373	17.14
14476	2800	1057	8.39	1103	9.52	1147	10.70	1191	11.92	1235	13.18	1278	14.47	1320	15.81	1361	17.19	1402	18.60
15510	3000	1108	9.61	1150	10.81	1192	12.04	1234	13.30	1275	14.61	1316	15.95	1356	17.34	1395	18.76	1434	20.21
16544	3200	1159	10.98	1199	12.23	1239	13.52	1279	14.84	1318	16.19	1356	17.59	1394	19.01	1432	20.48	1469	21.98
17578	3400	1212	12.50	1250	13.81	1288	15.15	1325	16.53	1362	17.94	1399	19.38	1435	20.85	1471	22.36	1507	23.91
18612	3600	1266	14.17	1302	15.55	1338	16.95	1373	18.38	1409	19.85	1443	21.34	1478	22.87	1512	24.42	1547	26.01
19646	3800	1320	16.01	1355	17.45	1389	18.92	1423	20.41	1456	21.93	1490	23.48	1523	25.05	1556	26.66	1588	28.30
20680	4000	1376	18.02	1408	19.53	1441	21.06	1473	22.61	1505	24.19	1537	25.80	1569	27.43	1600	29.09		

CFM	O.V.	6 1/2" SP		7" SP		7 1/2" SP		8" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
11374	2200	1372	15.91	1417	17.24	1461	18.60	1504	19.99
12408	2400	1391	17.17	1435	18.56	1477	19.98	1519	21.42
13442	2600	1415	18.54	1456	19.98	1497	21.45	1537	22.94
14476	2800	1442	20.05	1482	21.53	1521	23.04	1559	24.59
15510	3000	1473	21.70	1510	23.22	1548	24.78	1585	26.37
16544	3200	1506	23.51	1542	25.07	1578	26.67	1614	28.30
17578	3400	1542	25.48	1577	27.09	1611	28.73		
18612	3600	1580	27.63	1614	29.29				

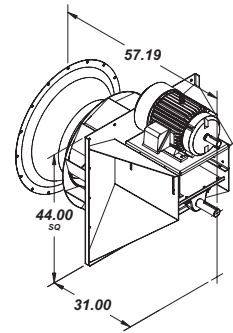
- Notes:
- 1) Power rating (BHP) does not include belt drive losses.
 - 2) Bold figures indicate maximum static efficiency.
 - 3) Single Width, Single Inlet.

Performance Data

VersaPlug Fan - VSP

330

Class	Max. Unit RPM
I	1131
II	1470



Wheel Diameter = 33 in.
Inlet Area = 6.49 sq. ft.
Tip Speed, FPM = 8.65 x RPM
Maximum BHP = 11.45 x (RPM/1000) ³

CFM	O.V.	1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		7/8" SP		1" SP		1 1/4" SP		1 1/2" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
5008	800	299	0.31	334	0.42	366	0.54	398	0.66	428	0.80	457	0.94	484	1.09	537	1.40		
5634	900	320	0.38	351	0.49	381	0.62	410	0.75	439	0.90	466	1.05	502	1.20	542	1.53	589	1.88
6260	1000	342	0.46	370	0.58	398	0.71	425	0.86	452	1.01	477	1.16	502	1.33	550	1.67	595	2.04
6886	1100	365	0.55	391	0.69	417	0.83	442	0.98	467	1.13	491	1.30	514	1.47	559	1.83	602	2.21
7512	1200	389	0.67	413	0.81	437	0.96	461	1.11	484	1.28	506	1.45	528	1.62	571	2.00	612	2.39
8138	1300	413	0.79	436	0.95	458	1.10	480	1.27	502	1.44	523	1.61	544	1.80	584	2.18	624	2.59
8764	1400	438	0.94	459	1.10	480	1.27	501	1.44	521	1.62	541	1.80	561	1.99	600	2.39	637	2.81
9390	1500	464	1.11	484	1.28	503	1.45	523	1.63	542	1.82	561	2.01	579	2.21	616	2.62	652	3.06
10016	1600	489	1.29	508	1.48	527	1.66	545	1.85	563	2.04	581	2.24	599	2.45	634	2.88	668	3.32
10642	1700	515	1.50	533	1.70	551	1.89	568	2.09	585	2.29	602	2.50	619	2.71	652	3.15	685	3.62
11268	1800	542	1.74	558	1.94	575	2.14	591	2.35	608	2.56	624	2.78	640	3.00	672	3.46	703	3.93
11894	1900	568	1.99	584	2.21	600	2.42	615	2.64	631	2.86	646	3.09	662	3.32	692	3.79	722	4.28
12520	2000	595	2.28	610	2.50	625	2.73	640	2.95	655	3.19	669	3.42	684	3.66	713	4.15	741	4.65
13772	2200	649	2.93	662	3.17	676	3.42	690	3.67	703	3.92	717	4.17	730	4.43	757	4.95	783	5.49
15024	2400	703	3.70	716	3.97	728	4.24	741	4.51	753	4.78	766	5.05	778	5.33	802	5.89	827	6.46
16276	2600	758	4.61	769	4.90	781	5.18	792	5.47	804	5.77	815	6.06	827	6.36	850	6.96	872	7.57
17528	2800	812	5.66	823	5.97	834	6.28	845	6.59	856	6.90	866	7.22	877	7.53	898	8.17	919	8.82
18780	3000	868	6.86	878	7.19	888	7.52	898	7.86	908	8.19	918	8.52	928	8.86	948	9.54	968	10.23
20032	3200	923	8.23	932	8.58	942	8.93	951	9.29	961	9.65	970	10.00	979	10.36	998	11.08	1017	11.81
21284	3400	978	9.78	987	10.15	996	10.52	1005	10.90	1014	11.28	1023	11.65	1031	12.03	1049	12.80	1067	13.56

CFM	O.V.	2" SP		2 1/2" SP		3" SP		3 1/2" SP		4" SP		4 1/2" SP		5" SP		5 1/2" SP		6" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
7512	1200	690	3.24	763	4.15														
8138	1300	698	3.47	769	4.41	835	5.41												
8764	1400	708	3.72	776	4.69	840	5.72	902	6.80	960	7.91								
9390	1500	720	3.99	785	4.99	848	6.05	907	7.17	964	8.32	1019	9.50						
10016	1600	733	4.28	796	5.31	856	6.40	914	7.55	969	8.74	1023	9.97	1075	11.23				
10642	1700	748	4.60	808	5.65	866	6.78	922	7.95	976	9.18	1029	10.44	1079	11.74	1128	13.08		
11268	1800	763	4.94	821	6.03	878	7.17	932	8.38	984	9.63	1035	10.93	1085	12.27	1133	13.65	1179	15.05
11894	1900	780	5.32	836	6.42	890	7.60	943	8.83	994	10.11	1043	11.45	1092	12.82	1138	14.23	1184	15.68
12520	2000	797	5.72	851	6.85	904	8.05	955	9.31	1004	10.62	1053	11.98	1100	13.39	1145	14.84	1190	16.32
13772	2200	835	6.62	885	7.81	934	9.06	982	10.37	1029	11.73	1074	13.15	1119	14.61	1163	16.12	1205	17.67
15024	2400	875	7.65	922	8.90	968	10.20	1013	11.56	1057	12.98	1100	14.45	1142	15.96	1184	17.53	1225	19.13
16276	2600	917	8.82	961	10.13	1004	11.50	1047	12.91	1088	14.38	1129	15.90	1169	17.47	1209	19.08	1248	20.74
17528	2800	961	10.15	1002	11.52	1043	12.95	1083	14.42	1122	15.94	1161	17.51	1200	19.13	1237	20.80	1274	22.51
18780	3000	1007	11.63	1046	13.08	1084	14.56	1122	16.10	1159	17.68	1196	19.30	1232	20.98	1268	22.69	1304	24.45
20032	3200	1054	13.29	1090	14.80	1127	16.36	1162	17.96	1198	19.60	1233	21.28	1268	23.01	1302	24.78	1336	26.59
21284	3400	1102	15.12	1136	16.71	1171	18.34	1205	20.00	1238	21.70	1272	23.45	1305	25.23	1337	27.06	1370	28.93
22536	3600	1151	17.15	1183	18.81	1216	20.51	1248	22.24	1280	24.01	1312	25.82	1344	27.67	1375	29.55	1406	31.48
23788	3800	1200	19.37	1231	21.12	1262	22.89	1293	24.70	1324	26.53	1354	28.41	1384	30.32	1414	32.26	1444	34.24
25040	4000	1251	21.81	1280	23.64	1310	25.49	1339	27.36	1369	29.27	1398	31.21	1426	33.19	1455	35.20		

CFM	O.V.	6 1/2" SP		7" SP		7 1/2" SP		8" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
13772	2200	1247	19.25	1288	20.86	1328	22.51	1368	24.19
15024	2400	1265	20.78	1304	22.46	1343	24.17	1381	25.92
16276	2600	1286	22.44	1324	24.18	1361	25.95	1397	27.76
17528	2800	1311	24.26	1347	26.05	1382	27.88	1417	29.75
18780	3000	1339	26.26	1373	28.10	1407	29.98	1441	31.90
20032	3200	1369	28.45	1402	30.34	1435	32.27	1467	34.25
21284	3400	1402	30.83	1433	32.78	1465	34.77		
22536	3600	1437	33.44	1467	35.44				

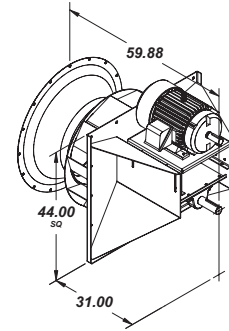
- Notes:
- 1) Power rating (BHP) does not include belt drive losses.
 - 2) Bold figures indicate maximum static efficiency.
 - 3) Single Width, Single Inlet.

Performance Data

VSP - VersaPlug Fan

365

Class	Max. Unit RPM
I	1011
II	1322



Wheel Diameter = 36.5 in.
Inlet Area = 7.98 sq. ft.
Tip Speed, FPM = 9.56 x RPM
Maximum BHP = 18.84 x (RPM/1000) ³

CFM	O.V.	1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		7/8" SP		1" SP		1 1/4" SP		1 1/2" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
6128	800	272	0.38	301	0.50	330	0.64	357	0.78	384	0.94	410	1.10	436	1.28				
6894	900	291	0.46	318	0.60	344	0.75	369	0.90	394	1.06	418	1.23	442	1.41	488	1.79		
7660	1000	312	0.57	336	0.72	360	0.87	384	1.03	407	1.20	429	1.38	451	1.56	493	1.96	535	2.38
8426	1100	333	0.69	356	0.85	378	1.02	400	1.19	421	1.37	442	1.55	462	1.74	502	2.15	541	2.58
9192	1200	355	0.82	376	1.00	397	1.18	418	1.36	437	1.55	457	1.75	476	1.95	513	2.36	550	2.81
9958	1300	377	0.98	398	1.17	417	1.36	436	1.56	455	1.76	473	1.96	491	2.17	526	2.61	561	3.07
10724	1400	400	1.16	419	1.37	438	1.57	456	1.78	473	1.99	491	2.21	508	2.43	541	2.88	573	3.36
11490	1500	424	1.37	442	1.58	459	1.80	476	2.02	493	2.25	509	2.47	525	2.70	557	3.18	587	3.67
12256	1600	447	1.59	464	1.82	481	2.06	497	2.29	513	2.53	528	2.77	544	3.01	574	3.51	603	4.02
13022	1700	471	1.85	487	2.09	503	2.34	518	2.59	533	2.84	548	3.09	563	3.35	591	3.86	619	4.40
13788	1800	495	2.13	510	2.39	525	2.65	540	2.91	554	3.18	569	3.44	582	3.71	610	4.25	637	4.81
14554	1900	519	2.44	534	2.72	548	2.99	562	3.27	576	3.55	589	3.82	603	4.10	629	4.67	655	5.25
15320	2000	543	2.78	557	3.07	571	3.36	584	3.66	598	3.95	611	4.24	624	4.53	649	5.12	673	5.73
16852	2200	592	3.57	605	3.89	618	4.21	630	4.53	642	4.85	654	5.17	666	5.49	690	6.14	713	6.79
18384	2400	641	4.50	653	4.85	665	5.20	677	5.55	688	5.90	699	6.25	710	6.60	732	7.30	753	8.00
19916	2600	691	5.59	702	5.97	713	6.35	724	6.73	734	7.11	745	7.48	755	7.86	776	8.62	796	9.38
21448	2800	741	6.85	751	7.26	761	7.67	772	8.08	782	8.49	791	8.89	801	9.30	820	10.11	839	10.93
22980	3000	791	8.29	801	8.73	810	9.17	820	9.61	829	10.05	838	10.49	848	10.92	866	11.79	884	12.66
24512	3200	841	9.93	850	10.41	859	10.87	868	11.34	877	11.81	886	12.28	895	12.74	912	13.67	929	14.60
26044	3400	891	11.78	900	12.29	909	12.79	917	13.29	926	13.78	934	14.28	942	14.77	958	15.76	975	16.75

CFM	O.V.	2" SP		2 1/2" SP		3" SP		3 1/2" SP		4" SP		4 1/2" SP		5" SP		5 1/2" SP		6" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
9192	1200	620	3.78																
9958	1300	627	4.06	691	5.16														
10724	1400	636	4.37	697	5.48	756	6.69												
11490	1500	647	4.72	705	5.85	761	7.07	816	8.38										
12256	1600	660	5.10	715	6.26	769	7.50	821	8.82	872	10.22								
13022	1700	674	5.51	727	6.70	778	7.96	828	9.30	877	10.72	925	12.21						
13788	1800	689	5.96	739	7.18	789	8.47	837	9.83	884	11.26	930	12.77	976	14.35	1020	16.00		
14554	1900	705	6.45	753	7.70	801	9.02	847	10.41	892	11.86	937	13.38	981	14.97	1024	16.63	1066	18.36
15320	2000	721	6.97	768	8.26	814	9.61	858	11.03	902	12.50	945	14.05	987	15.65	1029	17.33	1070	19.06
16852	2200	757	8.12	801	9.50	843	10.92	884	12.40	925	13.94	965	15.53	1005	17.18	1044	18.89	1082	20.65
18384	2400	795	9.43	836	10.90	875	12.41	914	13.96	952	15.56	990	17.21	1027	18.92	1064	20.67	1100	22.48
19916	2600	835	10.91	873	12.47	910	14.07	947	15.71	983	17.38	1018	19.10	1053	20.87	1088	22.69	1122	24.55
21448	2800	876	12.57	912	14.23	947	15.92	982	17.65	1016	19.41	1049	21.20	1082	23.04	1115	24.92	1147	26.85
22980	3000	919	14.41	953	16.18	986	17.97	1019	19.79	1051	21.64	1082	23.52	1114	25.44	1145	27.39	1175	29.38
24512	3200	962	16.46	994	18.34	1026	20.23	1057	22.14	1088	24.09	1118	26.06	1148	28.06	1177	30.09	1206	32.16
26044	3400	1006	18.72	1037	20.71	1067	22.70	1097	24.72	1126	26.76	1155	28.82	1183	30.92	1211	33.04	1239	35.19
27576	3600	1051	21.21	1080	23.31	1109	25.41	1138	27.53	1165	29.67	1193	31.83	1220	34.02	1247	36.23	1274	38.47
29108	3800	1096	23.94	1125	26.15	1152	28.36	1179	30.59	1206	32.83	1232	35.09	1259	37.38	1284	39.68	1310	42.01
30640	4000	1143	26.92	1169	29.24	1196	31.57	1222	33.90	1248	36.25	1273	38.62	1298	41.00	1323	43.40		

CFM	O.V.	6 1/2" SP		7" SP		7 1/2" SP		8" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
16852	2200	1120	22.48	1158	24.37	1195	26.32	1231	28.32
18384	2400	1136	24.35	1171	26.27	1206	28.24	1240	30.27
19916	2600	1156	26.46	1189	28.42	1222	30.43	1255	32.49
21448	2800	1179	28.82	1211	30.83	1242	32.89	1273	34.99
22980	3000	1206	31.42	1236	33.49	1266	35.61	1295	37.76
24512	3200	1235	34.27	1264	36.41	1292	38.59	1320	40.80
26044	3400	1267	37.37	1294	39.59	1321	41.84		
27576	3600	1300	40.73						

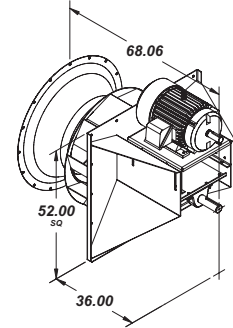
- Notes:
- 1) Power rating (BHP) does not include belt drive losses.
 - 2) Bold figures indicate maximum static efficiency.
 - 3) Single Width, Single Inlet.

Performance Data

VersaPlug Fan - VSP

402

Class	Max. Unit RPM
I	914
II	1201



Wheel Diameter = 40.25 in.
Inlet Area = 9.72 sq. ft.
Tip Speed, FPM = 10.55 x RPM
Maximum BHP = 30.72 x (RPM/1000) ³

CFM	O.V.	1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		7/8" SP		1" SP		1 1/4" SP		1 1/2" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
7448	800	246	0.46	273	0.61	299	0.78	324	0.95	348	1.14	372	1.34	395	1.55				
8379	900	264	0.56	288	0.73	312	0.91	335	1.09	357	1.29	379	1.49	401	1.71	442	2.18		
9310	1000	282	0.69	305	0.87	327	1.06	348	1.26	369	1.46	389	1.68	409	1.90	447	2.38	485	2.90
10241	1100	302	0.83	323	1.03	343	1.23	363	1.44	382	1.66	401	1.89	419	2.12	455	2.61	491	3.14
11172	1200	322	1.00	341	1.22	360	1.43	379	1.66	397	1.89	414	2.12	432	2.37	465	2.88	498	3.42
12103	1300	342	1.19	361	1.43	378	1.66	396	1.90	412	2.14	429	2.39	445	2.64	477	3.17	508	3.73
13034	1400	363	1.41	380	1.66	397	1.91	413	2.16	429	2.42	445	2.68	460	2.95	490	3.55	520	4.08
13965	1500	384	1.66	400	1.92	416	2.19	432	2.46	447	2.73	462	3.01	476	3.29	505	3.87	533	4.47
14896	1600	405	1.94	421	2.22	436	2.50	451	2.79	465	3.07	479	3.37	493	3.37	520	4.26	547	4.89
15827	1700	427	2.25	442	2.55	456	2.85	470	3.15	484	3.45	497	3.76	510	4.07	536	4.70	562	5.35
16758	1800	449	2.59	463	2.91	476	3.22	490	3.54	503	3.86	515	4.19	528	4.51	553	5.17	577	5.85
17689	1900	470	2.97	484	3.30	497	3.64	510	3.97	522	4.31	534	4.65	547	4.99	570	5.68	594	6.39
18620	2000	492	3.38	505	3.74	518	4.09	530	4.44	542	4.80	554	5.15	565	5.51	588	6.23	611	6.97
20482	2200	537	4.34	549	4.73	560	5.12	571	5.51	582	5.90	593	6.29	604	6.68	625	7.46	646	8.25
22344	2400	581	5.47	592	5.90	603	6.32	614	6.75	624	7.17	634	7.60	644	8.02	664	8.87	683	9.73
24206	2600	626	6.80	637	7.26	647	7.72	656	8.18	666	8.64	676	9.10	685	9.56	703	10.48	722	11.40
26068	2800	672	8.33	681	8.83	690	9.33	700	9.82	709	10.32	718	10.81	726	11.31	744	12.30	761	13.29
27930	3000	717	10.08	726	10.62	735	11.16	743	11.69	752	12.22	760	12.75	769	13.28	785	14.34	801	15.40
29792	3200	763	12.08	771	12.65	779	13.22	787	13.79	795	14.36	803	14.93	811	15.49	827	16.62	842	17.75
31654	3400	808	14.33	816	14.94	824	15.55	832	16.16	839	16.76	847	17.36	854	17.96	869	19.17	884	20.37

CFM	O.V.	2" SP		2 1/2" SP		3" SP		3 1/2" SP		4" SP		4 1/2" SP		5" SP		5 1/2" SP		6" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
11172	1200	562	4.60																
12103	1300	569	4.94	626	6.27														
13034	1400	577	5.32	632	6.67	685	8.13												
13965	1500	587	5.74	639	7.12	690	8.60	740	10.19										
14896	1600	598	6.20	648	7.61	697	9.12	745	10.72	791	12.43								
15827	1700	611	6.71	659	8.15	705	9.68	751	11.31	795	13.03	839	14.85						
16758	1800	625	7.25	670	8.74	715	10.30	759	11.96	802	13.70	843	15.53	885	17.45	925	19.46		
17689	1900	639	7.84	683	9.37	726	10.97	768	12.66	809	14.42	850	16.27	889	18.21	928	20.23	967	22.33
18620	2000	654	8.47	697	10.05	738	11.69	778	13.41	818	15.21	857	17.08	895	19.03	933	21.07	970	23.18
20482	2200	687	9.88	726	11.55	764	13.28	802	15.08	839	16.95	875	18.88	911	20.89	947	22.97	982	25.12
22344	2400	721	11.47	758	13.25	794	15.09	829	16.98	864	18.92	898	20.93	931	23.00	965	25.14	997	27.34
24206	2600	757	13.27	792	15.17	825	17.11	859	19.10	891	21.14	923	23.23	955	25.38	986	27.29	1017	29.85
26068	2800	794	15.28	827	17.30	859	19.36	890	21.46	921	23.60	951	25.79	981	28.02	1011	30.31	1040	32.65
27930	3000	833	17.53	864	19.68	894	21.85	924	24.06	953	26.31	982	28.60	1010	30.93	1038	33.31	1066	35.73
29792	3200	872	20.02	902	22.30	930	24.60	958	26.93	986	29.29	1014	31.68	1041	34.12	1067	36.59	1094	39.11
31654	3400	912	22.77	940	25.18	968	27.61	994	30.06	1021	32.54	1047	35.05	1073	37.59	1098	40.17	1124	42.79
33516	3600	953	25.79	980	28.34	1006	30.90	1031	33.48	1057	36.08	1082	38.71	1106	41.37	1131	44.05	1155	46.78
35378	3800	994	29.11	1020	31.80	1045	34.49	1069	37.20	1094	39.93	1118	42.68	1141	45.45	1165	48.25	1188	51.08
37240	4000	1036	32.73	1060	35.56	1084	38.39	1108	41.23	1131	44.09	1154	46.96	1177	49.86	1200	52.78		

CFM	O.V.	6 1/2" SP		7" SP		7 1/2" SP		8" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
20482	2200	1016	27.34	1050	29.63	1083	32.00	1116	34.44
22344	2400	1030	29.61	1062	31.94	1094	34.34	1125	36.81
24206	2600	1049	32.18	1078	34.56	1108	37.00	1138	39.51
26068	2800	1069	35.04	1098	37.49	1126	39.99	1154	42.55
27930	3000	1093	38.20	1121	40.73	1148	43.30	1174	45.92
29792	3200	1120	41.67	1146	44.27	1172	46.92	1197	49.62
31654	3400	1149	45.44	1173	48.14	1198	50.87		
33516	3600	1179	49.53						

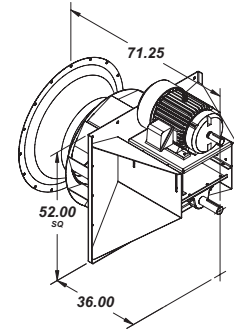
- Notes:
- 1) Power rating (BHP) does not include belt drive losses.
 - 2) Bold figures indicate maximum static efficiency.
 - 3) Single Width, Single Inlet.

Performance Data

VSP - VersaPlug Fan

445

Class	Max. Unit RPM
I	832
II	1086



Wheel Diameter = 44.5 in.
Inlet Area = 11.86 sq. ft.
Tip Speed, FPM = 11.65 x RPM

CFM	O.V.	1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		7/8" SP		1" SP		1 1/4" SP		1 1/2" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
9112	800	223	0.56	247	0.75	270	0.95	293	1.16	315	1.39	336	1.64	357	1.90				
10251	900	239	0.69	261	0.89	282	1.11	303	1.33	323	1.57	343	1.83	362	2.09	400	2.67		
11390	1000	255	0.84	276	1.06	296	1.29	315	1.54	333	1.79	352	2.05	370	2.32	405	2.91	439	3.54
12529	1100	273	1.02	292	1.26	310	1.51	328	1.76	345	2.03	362	2.30	379	2.59	412	3.19	444	3.84
13668	1200	291	1.23	309	1.49	326	1.75	342	2.03	359	2.31	375	2.59	390	2.89	421	3.51	451	4.18
14807	1300	309	1.46	326	1.74	342	2.03	358	2.32	373	2.61	388	2.92	403	3.23	432	3.88	460	4.56
15946	1400	328	1.73	344	2.03	359	2.33	374	2.64	388	2.96	402	3.28	416	3.61	444	4.28	470	4.99
17085	1500	347	2.03	362	2.35	376	2.68	390	3.01	404	3.34	417	3.68	431	4.02	456	4.73	482	5.46
18224	1600	367	2.37	381	2.71	394	3.06	407	3.41	420	3.76	433	4.11	446	4.48	470	5.21	494	5.98
19363	1700	386	2.74	399	3.11	412	3.48	425	3.85	437	4.22	449	4.59	461	4.97	485	5.74	508	6.54
20502	1800	406	3.16	418	3.55	431	3.94	443	4.33	455	4.72	466	5.12	478	5.51	500	6.32	522	7.15
21641	1900	426	3.63	438	4.04	449	4.45	461	4.86	472	5.27	483	5.68	494	6.10	516	6.94	537	7.81
22780	2000	445	4.14	457	4.57	468	5.00	479	5.43	490	5.87	501	6.30	511	6.74	532	7.62	552	8.51
25058	2200	485	5.31	496	5.78	507	6.26	517	6.73	527	7.21	537	7.68	546	8.16	566	9.12	584	10.09
27336	2400	526	6.69	536	7.21	545	7.73	555	8.25	564	8.77	573	9.28	583	9.80	600	10.84	618	11.89
29614	2600	567	8.31	576	8.87	585	9.44	594	10.00	602	10.56	611	11.12	619	11.68	636	12.81	653	13.94
31892	2800	607	10.18	616	10.79	624	11.40	633	12.01	641	12.61	649	13.22	657	13.82	673	15.03	688	16.24
34170	3000	648	12.66	657	12.98	664	13.64	672	14.29	680	14.94	688	15.59	695	16.23	710	17.53	725	18.82
36448	3200	690	14.77	697	15.47	705	16.16	712	16.86	719	17.56	727	18.25	734	18.94	748	20.32	762	21.70
38726	3400	731	17.52	738	18.26	745	19.01	752	19.75	759	20.49	766	21.22	773	21.96	786	23.43	799	24.89

CFM	O.V.	2" SP		2 1/2" SP		3" SP		3 1/2" SP		4" SP		4 1/2" SP		5" SP		5 1/2" SP		6" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
13668	1200	508	5.62																
14807	1300	514	6.04	567	7.66														
15946	1400	522	6.50	572	8.15	620	9.94												
17085	1500	531	7.02	578	8.70	624	10.51	669	12.45										
18224	1600	541	7.58	586	9.30	630	11.14	673	13.10	715	15.19								
19363	1700	553	8.20	596	9.96	638	11.84	679	13.82	719	15.93	759	18.15						
20502	1800	565	8.86	606	10.68	647	12.59	686	14.61	725	16.74	763	18.98	800	21.33	836	23.78		
21641	1900	578	9.58	618	11.45	657	13.41	695	15.47	732	17.63	768	19.89	804	22.25	840	24.72	874	27.29
22780	2000	592	10.36	630	12.28	667	14.29	704	16.39	740	18.59	775	20.88	810	23.27	844	25.75	878	28.34
25058	2200	621	12.07	657	14.12	691	16.24	725	18.44	759	20.72	792	23.08	824	25.53	856	28.07	888	30.70
27336	2400	652	14.02	685	16.20	718	18.44	750	20.75	781	23.13	812	25.59	842	28.12	873	30.73	902	33.42
29614	2600	685	16.22	716	18.54	747	20.91	776	23.35	806	25.84	835	28.40	864	31.02	892	33.72	920	36.49
31892	2800	719	18.68	748	21.15	777	23.67	805	26.23	833	28.84	860	31.52	888	34.25	914	37.05	941	39.91
34170	3000	753	21.42	781	24.05	809	26.71	835	29.41	862	32.16	888	34.96	913	37.81	939	40.71	964	43.68
36448	3200	789	24.47	815	27.25	841	30.07	867	32.91	892	35.80	917	38.73	941	41.71	965	44.73	989	47.81
38726	3400	825	27.83	850	30.78	875	33.75	899	36.75	923	39.78	947	42.84	970	45.95	993	49.10	1016	52.30
41004	3600	862	31.53	886	34.64	910	37.77	933	40.93	956	44.11	978	47.32	1001	50.57	1023	53.85	1045	57.13
43282	3800	899	35.58	922	38.86	945	42.16	967	45.47	989	48.80	1011	52.16	1032	55.56	1053	58.98	1074	62.44
45560	4000	937	40.01	959	43.46	981	46.92	1002	50.40	1023	53.89	1044	57.40	1065	60.94	1085	64.51		

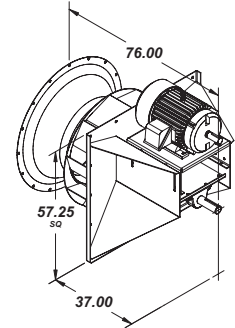
CFM	O.V.	6 1/2" SP		7" SP		7 1/2" SP		8" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
25058	2200	919	33.42	950	36.22	980	39.12	1010	42.10
27336	2400	931	36.19	960	39.04	989	41.97	1017	44.99
29614	2600	948	39.33	975	42.24	1002	45.23	1029	48.29
31892	2800	967	42.83	993	45.82	1019	48.88	1044	52.01
34170	3000	989	46.70	1014	49.78	1038	52.92	1062	56.13
36448	3200	1013	50.93	1036	54.12	1060	57.35	1083	60.65
38726	3400	1039	55.55	1061	58.84	1083	62.18		
41004	3600	1066	60.54						

- Notes:
- 1) Power rating (BHP) does not include belt drive losses.
 - 2) Bold figures indicate maximum static efficiency.
 - 3) Single Width, Single Inlet.

490

Class	Max. Unit RPM
I	752
II	985

Wheel Diameter = 49 in.
Inlet Area = 14.42 sq. ft.
Tip Speed, FPM = 12.85 x RPM
Maximum BHP = 82.15 x (RPM/1000) ³



CFM	O.V.	1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		7/8" SP		1" SP		1 1/4" SP		1 1/2" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
11040	800	202	0.68	224	0.91	245	1.15	266	1.41	286	1.69	305	1.99	324	2.30				
12420	900	217	0.84	237	1.08	256	1.34	275	1.62	293	1.91	311	2.21	329	2.54	363	3.23		
13800	1000	232	1.02	251	1.29	268	1.57	286	1.86	303	2.17	319	2.48	336	2.82	367	3.53	398	4.29
15180	1100	248	1.24	265	1.53	282	1.83	298	2.14	314	2.46	329	2.79	344	3.14	374	3.87	403	4.65
16560	1200	264	1.49	280	1.80	296	2.12	311	2.46	326	2.80	340	3.15	354	3.51	382	4.26	409	5.06
17940	1300	281	1.77	296	2.11	311	2.46	325	2.81	339	3.17	352	3.54	366	3.92	392	4.70	418	5.53
19320	1400	298	2.09	312	2.46	326	2.83	339	3.21	352	3.59	365	3.98	378	4.37	403	5.19	427	6.05
20700	1500	315	2.46	329	2.85	342	3.25	354	3.65	367	4.05	379	4.46	391	4.87	415	5.73	437	6.62
22080	1600	333	2.87	346	3.29	358	3.71	370	4.13	382	4.56	393	4.99	405	5.43	427	6.32	449	7.25
23460	1700	351	3.33	363	3.77	374	4.22	386	4.66	397	5.11	408	5.57	419	6.03	440	6.96	461	7.93
24840	1800	368	3.84	380	4.31	391	4.78	402	5.25	413	5.72	423	6.20	434	6.68	454	7.66	474	8.67
26220	1900	386	4.40	397	4.90	408	5.39	419	5.89	429	6.39	439	6.89	449	7.40	468	8.42	488	9.46
27600	2000	404	5.02	415	5.54	425	6.06	435	6.59	445	7.11	455	7.64	464	8.17	483	9.24	502	10.32
30360	2200	441	6.43	451	7.01	460	7.59	469	8.16	478	8.74	487	9.32	496	9.89	514	11.06	531	12.23
33120	2400	478	8.11	487	8.74	495	9.37	504	10.00	512	10.63	521	11.26	529	11.89	545	13.15	561	14.42
35880	2600	515	10.07	523	10.76	531	11.44	539	12.13	547	12.81	555	13.49	563	14.17	578	15.53	593	16.90
38640	2800	552	12.34	559	13.08	567	13.82	575	14.56	582	15.29	589	16.02	597	16.76	611	18.22	625	19.69
41400	3000	589	14.95	596	15.74	603	16.53	610	17.32	617	18.11	624	18.90	631	19.68	645	21.25	658	22.82
44160	3200	626	17.90	633	18.75	640	19.60	647	20.44	653	21.29	660	22.12	666	22.96	679	24.64	692	26.31
46920	3400	664	21.24	670	22.14	677	23.05	683	23.94	689	24.84	696	25.73	702	26.62	714	28.41	726	30.18

CFM	O.V.	2" SP		2 1/2" SP		3" SP		3 1/2" SP		4" SP		4 1/2" SP		5" SP		5 1/2" SP		6" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
16560	1200	462	6.82																
17940	1300	467	7.32	515	9.29														
19320	1400	474	7.88	519	9.88	563	12.05												
20700	1500	482	8.51	525	10.55	567	12.74	608	15.10										
22080	1600	491	9.19	533	11.28	573	13.51	611	15.89	649	18.42								
23460	1700	502	9.94	541	12.08	579	14.35	617	16.76	653	19.31	689	22.00						
24840	1800	513	10.75	551	12.95	587	15.27	623	17.72	658	20.30	693	23.01	727	25.86	760	28.83		
26220	1900	525	11.62	561	13.88	596	16.26	631	18.76	665	21.37	698	24.12	730	26.98	762	29.97	794	33.09
27600	2000	537	12.56	572	14.89	606	17.33	639	19.87	672	22.54	704	25.31	735	28.21	766	31.22	797	34.36
30360	2200	564	14.64	596	17.12	628	19.69	659	22.35	689	25.12	719	27.99	749	30.96	778	34.04	806	37.22
33120	2400	592	17.00	622	19.64	652	22.36	681	25.16	709	28.05	737	31.02	765	34.09	792	37.26	819	40.52
35880	2600	622	19.66	650	22.48	678	25.36	705	28.31	732	31.33	758	34.43	784	37.62	810	40.88	836	44.24
38640	2800	652	22.65	679	25.65	705	28.69	731	31.80	756	34.97	781	38.21	806	41.53	830	44.92	854	48.39
41400	3000	684	25.98	709	29.16	734	32.39	759	35.66	783	38.99	806	42.39	830	45.84	853	49.36	875	52.96
44160	3200	716	29.67	740	33.04	764	36.46	787	39.91	810	43.41	832	46.96	855	50.57	877	54.23	898	57.96
46920	3400	749	33.74	772	37.32	795	40.92	817	44.55	839	48.23	860	51.95	881	55.72	902	59.54	923	63.41
49680	3600	783	38.23	805	42.00	826	45.80	847	49.62	868	53.48	889	57.37	909	61.31	929	65.29	949	69.32
52440	3800	817	43.14	838	47.12	858	51.12	878	55.13	898	59.17	918	63.25	937	67.36	957	71.51	976	75.71
55200	4000	851	48.51	871	52.70	891	56.89	910	61.10	929	65.34	948	69.60	967	73.89	985	78.22		

CFM	O.V.	6 1/2" SP		7" SP		7 1/2" SP		8" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
30360	2200	834	40.52	862	43.92	890	47.43	917	51.05
33120	2400	846	43.88	872	47.34	898	50.89	924	54.55
35880	2600	861	47.68	886	51.22	910	54.84	934	58.56
38640	2800	878	51.93	902	55.56	925	59.27	948	63.06
41400	3000	898	56.62	920	60.36	943	64.17	965	68.05
44160	3200	920	61.76	941	65.62	962	69.54	983	73.54
46920	3400	943	67.35	964	71.34	984	75.40		
49680	3600	968	73.41						

- Notes: 1) Power rating (BHP) does not include belt drive losses.
 2) Bold figures indicate maximum static efficiency.
 3) Single Width, Single Inlet.

Engineering Notes

VSP - VersaPlug Fan

Density Correction Procedure

Our catalog performances, in accordance with AMCA standards, are based on standard air density of .75 lbs. per cubic foot and 29.92 inches Hg barometric pressure. Conversion factors to correct for high altitudes and temperatures can be found in the chart at right.

Use the following method to convert actual conditions to standard air conditions.

1. Determine the altitude correction factor (CF_{ALT}) from the chart.

Altitude	CF_{ALT}	Altitude	CF_{ALT}
0	1.000	5000	0.832
500	0.982	6000	0.801
1000	0.965	7000	0.772
2000	0.930	8000	0.743
3000	0.896	9000	0.714
4000	0.864	10000	0.688

2. Density Ratio:

$$CF_{ALT} \times \frac{530^{\circ}R}{Temp. ^{\circ}F + 460^{\circ}F}$$

3. Divide the actual static pressure (in inches of water) by the density ratio to establish standard static pressure. Then use the new static pressure to determine fan performance from the tables in this catalog.

High Temperature Operation

For operating temperatures to 300°F:

PennBarry standard VersaPlug construction is suitable. No additional accessories are required in this temperature range.

For temperature from 301°F to 500°F:

The 500°F Heat Fan Package must be ordered. This accessory group includes a shaft cooler and guard, shaft seal, high temperature grease bearings.

For temperatures from 501°F to 750°F:

The 750°F Heat Fan Package must be ordered. The 750°F HFP includes a shaft cooler and guard, shaft seal, high temperature grease bearings, and special high temperature paint. Oversize shafts may also be required for operation in the 501°F to 750°F temperature range; determination is made by the factory.

For temperature above 750°F:

Contact the factory.

Insulated plugs are not required but are recommended when the fan will be used for elevated temperatures. This insures a continuous wall of high temperature insulation even where the fan's shaft goes through the oven or kiln wall. This square plug provides 4" to 6" of insulation around the shaft and seals the opening where the fan is installed to insure a safe ambient temperature around the bearing of 120°F or less. The insulated plug is assembled to the base unit at the factory.

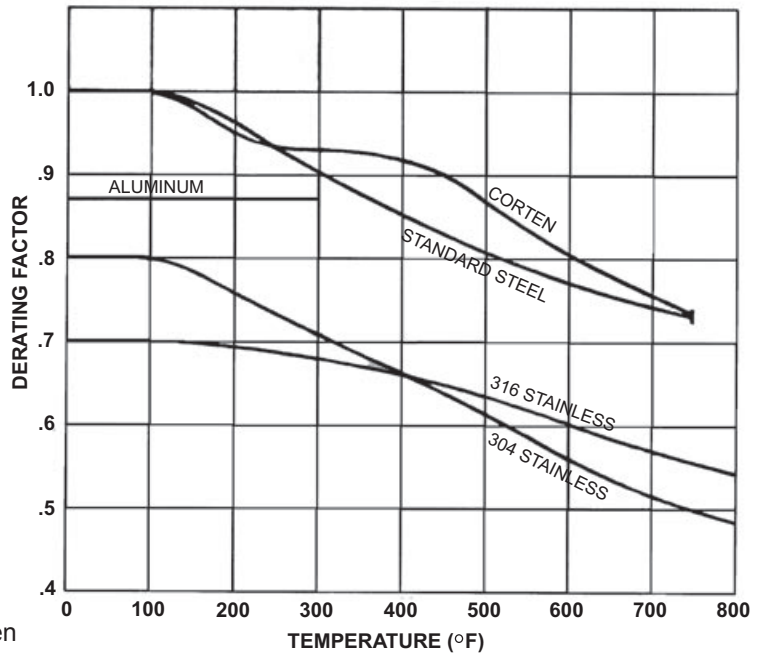
Max. RPM • WR² • Fan Weights

Size	WR ²		Net Unit Weight				Maximum Wheel RPM	
	CLASS I	CLASS II	CLASS I	CLASS II	Opt. Plug	HSG	CLASS I	CLASS II
122	1.65	2.5	94	113	13	31	3663	4729
135	2.45	3.7	101	128	13	39	3166	4080
150	3.95	5.5	105	132	13	46	2858	3871
165	6.50	8.7	113	141	13	57	2797	3611
182	10.50	13.0	178	208	23	71	2405	3104
200	15.00	19.5	188	216	23	85	2096	2706
222	27.50	33.0	232	257	23	93	1786	2306
245	39.00	46.0	242	267	23	125	1996	2275
270	58.00	68.0	432	461	61	157	1725	1967
300	89.00	106.0	450	471	61	280	1473	1679
330	128.00	151.0	483	518	61	310	1277	1696
365	212.00	238.0	534	575	61	385	1098	1458
402	353.00	414.0	728	815	93	476	948	1259
445	505.00	590.0	728	815	93	560	929	1083
490	722.00	860.0	916	1060	135	681	937	1207

Note:

1. WR² is for the entire rotating assembly.
2. Net unit weights are approximate; cone, motor and drive not included.

RPM Reduction Factors



General

Furnish and install, as shown on the plans, PennBarry VersaPlug. Unless otherwise noted, all fans shall conform to the layout on the drawings. **Motor horsepower shall not be exceeded.** Fans shall be constructed of low carbon steel and painted with an approved corrosion resistant coating. Each fan shall receive a documented inspection by a qualified inspector before leaving the factory. The inspection shall include welding, dimensions, bearings and overall workmanship.

Wheels and Mounting

Wheels shall be the energy efficient backward inclined type. Wheel diameters shall be in accordance with the standard sizes adopted by AMCA for non-overloading fans.

Fan pedestals shall be rigidly built and braced. Pedestals shall be welded to a square, flat rigid mounting plate. Lifting lugs shall be welded to the mounting plate to facilitate handling of the fan.

Shaft and Bearings

First critical shaft speeds shall be at least 142% of the fan's maximum operating speed. Bearings shall be designed for heavy-duty service with a minimum L_{10} life of at least 40,000 hours. Bearings ratings are based on the fan's maximum catalogued operating speed. Bearings shall be either single row ball or double row spherical roller type in a one-piece cast iron housing, or a double row spherical roller type in a split cast iron pillow block. Bearings shall be firmly mounted to a rigid metal plate which is to be welded to the motor support.

Accessories

Accessories shall be provided as called for in the plans and specifications. Required accessories include housing, type C spark resistant construction, drain, variable inlet vanes with stainless steel rods, shaft seal, belt guard, shaft guard, heat fan package, insulated plug and special coatings.

Performance and Testing

Fan performance shall be based on tests conducted in accordance with the AMCA Standard Test Code for Air Moving Devices. Fans shall have a sharply rising pressure characteristic extending through the operating range and continuing to rise well beyond the efficiency peak to assure stable operation under all conditions. Horsepower characteristics shall be truly self-limiting and shall reach a peak in the normal selection area.

Balancing

A factory dynamic balance shall be made on all fans after assembly. An IRD or PMC analyzer shall be used to measure velocity, and the final reading **shall not exceed 0.1 inches per second.**

Submittals

Submittals for approval of equipment shall include _____ copies of outline drawings and pressure-volume performance curves showing point of operation.

Testing the Unhoused VersaPlug

The PennBarry VersaPlug fan was subjected to an exacting series of air performance tests for the determination of actual derating factors for both RPM and BHP for the unhoused condition. All tests were performed in an AMCA approved laboratory according to the test code ASHRAE 51-75 AMCA 210-74, "Laboratory Methods of Testing Fans for Rating," prepared jointly by the American Society of Heating, Refrigerating and Air Conditioning Engineers and the Air Movement and Control Association. Fans were tested on an inlet duct test setup with the test units bolted directly to a plenum which was specially designed to simulate actual field applications.

Air performance tests were performed over the complete range of the fan's characteristic pressure-volume curve to determine its performance compared to a housed unit of the same size. Wall conditions within the special plenum were changed to various wheel-to-wall clearances and number of walls. The proximity factors were then calculated, based on the tests, and are shown on page 5.

Because the unhoused proximity factors were determined by actual tests, you can be assured that desired performance conditions will be met when derating calculations are correctly applied.

One Year Limited Warranty

VSP - VersaPlug Fan

What Products Are Covered

PennBarry Commercial and Industrial Fans (each, a "PennBarry Product")

One Year Limited Warranty For PennBarry Products

PennBarry warrants to the original commercial purchaser that the PennBarry Products will be free from defects in material and workmanship for a period of one (1) year from the date of shipment.

Exclusive Remedy

PennBarry will, at its option, repair or replace (without removal or installation) the affected components of any defective PennBarry Product; repair or replace (without removal or installation) the entire defective PennBarry Product; or refund the invoiced price of the PennBarry Product. In all cases, a reasonable time period must be allowed for warranty repairs to be completed.

What You Must Do

In order to make a claim under these warranties:

1. You must be the original commercial purchaser of the PennBarry Product.
2. You must promptly notify us within the warranty period of any defect and provide us with any substantiation that we may reasonably request.
3. The PennBarry Product must have been installed and maintained in accordance with good industry practice and any specific PennBarry recommendations.

Exclusions

These warranties do not cover defects caused by:

1. Improper design or operation of the system into which the PennBarry Product is incorporated.
2. Improper installation.
3. Accident, abuse or misuse.
4. Unreasonable use (including any use for non-commercial purposes, failure to provide reasonable and necessary maintenance as specified by PennBarry, misapplication and operation in excess of stated performance characteristics).
5. Components not manufactured by PennBarry.

Limitations

1. In all cases, PennBarry reserves the right to fully satisfy its obligations under the Limited Warranties by refunding the invoiced price of the defective PennBarry Product (or, if the PennBarry Product has been discontinued, of the most nearly comparable current product).
2. PennBarry reserves the right to furnish a substitute or replacement component or product in the event a PennBarry Product or any component of the product is discontinued or otherwise unavailable.
3. PennBarry's only obligation with respect to components not manufactured by PennBarry shall be to pass through the warranty made by the manufacturer of the defective component.

General

The foregoing warranties are exclusive and in lieu of all other warranties except that of title, whether written, oral or implied, in fact or in law (including any warranty of merchantability or fitness for a particular purpose).

PennBarry hereby disclaims any liability for special, punitive, indirect, incidental or consequential damages, including without limitation lost profits or revenues, loss of use of equipment, cost of capital, cost of substitute products, facilities or services, downtime, shutdown or slowdown costs.

The remedies of the original commercial purchaser set forth herein are exclusive and the liability of PennBarry with respect to the PennBarry Products, whether in contract, tort, warranty, strict liability or other legal theory shall not exceed the invoiced price charged by PennBarry to its customer for the affected PennBarry Product at the time the claim is made.

Inquiries regarding these warranties should be sent to: PennBarry, 1401 North Plano Road, Richardson, TX 75081.

OTHER PENNBARRY PRODUCTS

CENTRIFUGAL PRODUCTS



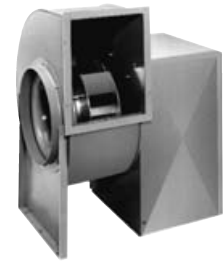
Domex
Centrifugal
Roof Exhausters



Fumex Fatrap
Kitchen Hood Centrifugal
Roof Exhausters



Zephyr
Ceiling and Inline Fans



Dynamo
Centrifugal Blowers



Centrex Inliner
Centrifugal Inline Fans



LC Dynafan
Low Contour Centrifugal
Roof Exhausters

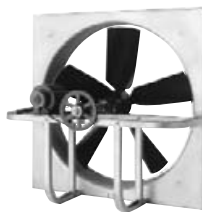


ESI
Efficient Silent
Inline Fan



Fume Exhaust
Curb Mounted
Centrifugal Fans

AXIAL / GRAVITY PRODUCTS



Breezeway
Propeller Wall Fans



HI-EX
Power Roof Ventilator



Tubeaxial
Inline Fans



Vaneaxial
Inline Fans



Powered Airette
Axial Roof Ventilators



Airette
Gravity Intake/Relief Hood



Domex Axial
Axial Roof Ventilators



Axcentrix
Bifurcator Fan

For more information contact your local PennBarry Sales
Manufacturer Representative or visit us at www.PennBarry.com

