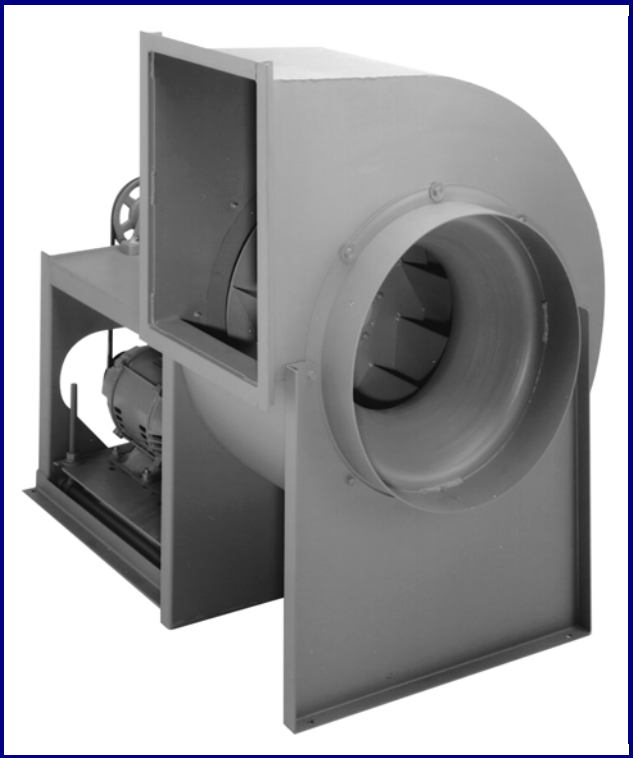
# Ventilating Sets



AMERICAN Coolair®

ILG INDUSTRIES

**Type VSBC – Backward Inclined**
**Type VSFC – Forward Curved**
**Type VSAC – Airfoil**
**Type VSFCJ, VSDDF, VSBCJ – Junior Vent Sets**

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## Ventilating Sets

***Sizes 12” to 36”***
***Flow rate from***
***688 to 29,108 CFM***
***and 8” static pressure***

## Junior Ventilating Sets

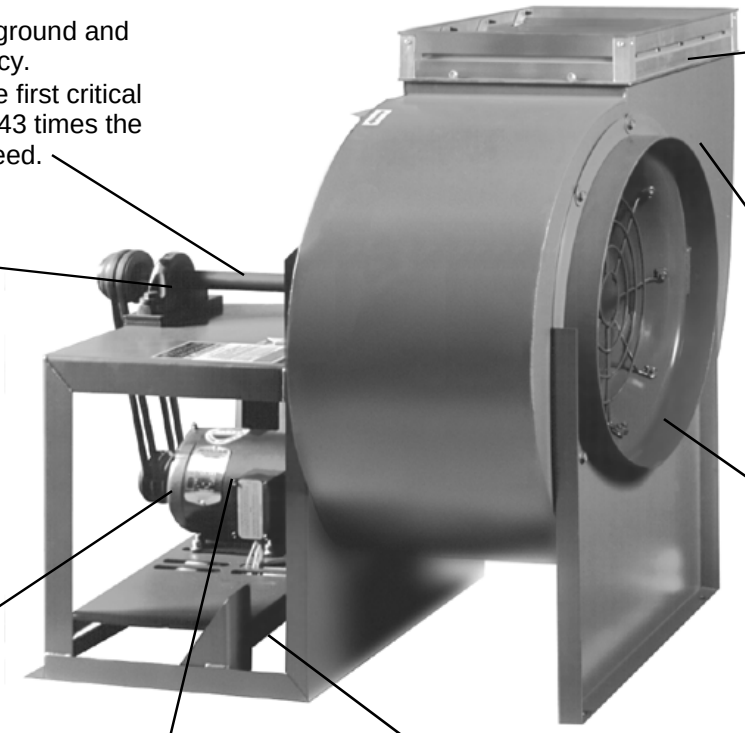
***Sizes 6” to 10”***
***Flow rate from***
***260 to 2127CFM***
***and 5” static pressure***

# Standard Construction Features– Class I and II

### Type VSBC, VSFC, VSAC

Standard design features common to all Class I and Class II fans:

**Shaft**
- AISI 1045, turned, ground and polished for accuracy.
- Designed to provide first critical speed of at least 1.43 times the maximum class speed.



**Shutter**
Optional discharge gravity shutter.

**Bearings**
Heavy duty grease lubricated pillow block bearings selected for minimum average life (AFBMA L-50) of at least 200,000 hours at maximum class speed.

**Housing**
- Rugged, all-welded construction.
- Rotatable to eight standard discharge positions.

**Inlet Cone**
Deep spun cone, aerodynamically designed for smooth air entry into the wheel, shown here with optional inlet screen

**Drives**
Adjustable or fixed pitch, 1.2 or 1.5 service factor V-belt drives with cast iron sheaves, and V-belts designed to be oil and heat resistant, and to dissipate static electricity.

**Motor**
Available in various sizes, voltages, enclosures, and efficiencies to meet the needs of any application.

**Motor/Bearing Pedestal (Class I Shown)**
Large open motor compartment allows complete access to motor and motor base for quick and easy servicing and belt tension adjustment.

# Construction Features

| CLASS I | CLASS II |
|---|---|
| Rotatable to Size 36 | Rotatable to Size 36 |
| Static Pressures to 5” | Static Pressures to 8” |
| Capacities to 26,000 CFM | Capacities to 33,000 CFM |
| Wheel Dia.12-1/4” to 36-1/2” | Wheel Dia.12-1/4” to 36-1/2” |
| Temperatures to 500°F | Temperatures to 600°F |
| Maximum Motor Frame Size 256T (20HP) | Maximum Motor Frame Size 326T (50HP) |
| Full AMCA Class Rated Performance | Full AMCA Class Rated Performance |

# Certification

American Coolair certifies that the type VSBC fans shown on pages 8 through 11 and VSAC fans shown on pages 16 through 19 are licensed to bear the AMCA Seal for Sound and Air. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings program.

American Coolair certifies that the type VSFC fans shown on pages 12 through 15 are licensed to bear the AMCA Seal for Air. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and comply with the requirements of the AMCA Certified Ratings program.

Class I VSBC fans are available for listing under UL 705 and UL 762.

For sound performance see Eng. Bulletin 2002-10.

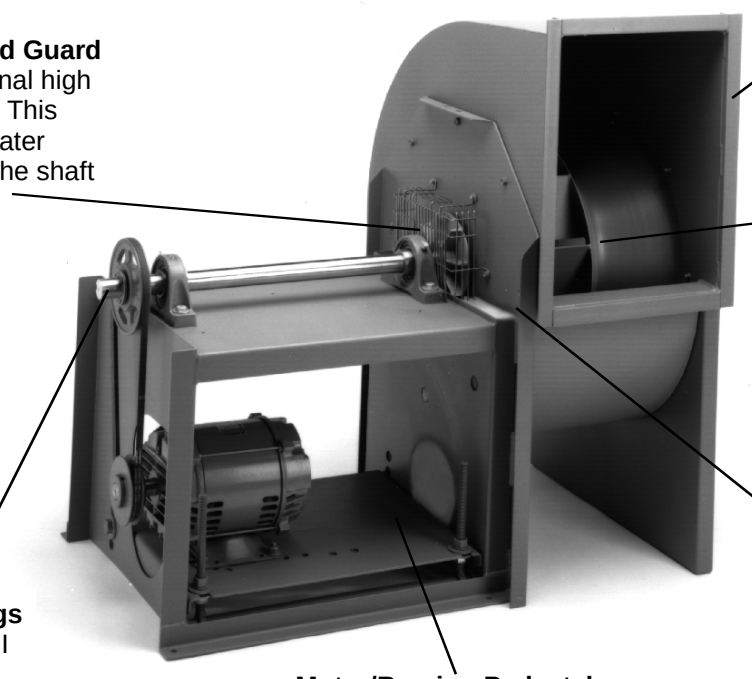
Bulletin illustrations cover the general appearance of American Coolair Corporation products at the time of publication and we reserve the right to make changes in design and construction at any time without notice.

# Class II Construction Features

### Type VSBC, VSFC, VSAC

In addition to the standard design features, the Class II vent sets are also equipped with the following features:

**Shaft Cooler, Seal and Guard**
Included with the optional high temperature package. This assembly provides greater thermal protection for the shaft and bearings.



**Outlet Flange**
Standard on sizes 22 and larger.

**Class II Rated Wheel**
Constructed of all welded steel for heavy duty applications.

**Heat Gap**
Separation between the fan housing and motor/bearing pedestal. For operating Temperatures above 300˚F, this gap is insulated to provide additional protection to the motor, bearings and V-belt.

**Shaft and Bearings**
Heavy duty Class II shaft and bearings.

**Motor/Bearing Pedestal**
Extra-large motor/bearing pedestal compartment accommodates all motor sizes required for full Class II performance.

# Wheel Selection

**ALUMINUM BC**
**(Backward Inclined)**

Wheels for VSBC Class I sizes 12 through 27 are constructed of riveted aluminum. For operating temperatures over 250°F, a welded steel wheel is provided.

**STEEL BC**
**(Backward Inclined)**

Wheels for VSBC Class I sizes 30 through 36, as well as all VSBC Class II sizes, are constructed of welded steel.

**STEEL FC**
**(Forward Curved)**

All VSFC fans are equipped with riveted steel wheels

In addition to the above configurations, American Coolair Corporation offers VSAC airfoil vent sets in sizes 12 through 36 with welded airfoil wheels. See pages 16 through 19 for performance.

# Accessories

## Weather Cover

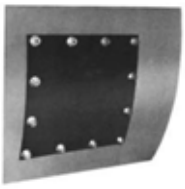
An easily removable weather cover is available for either Class I or Class II fans. The weather cover provides complete protection for the motor, fan bearings, and V-belt drive. If an OSHA-style belt guard is specified on vent sets, a weather cover will be supplied.

## Outlet Shutters

Interconnected blade-style shutters, of either gravity or motor operated type. Fabricated with die-formed and felted edges, they are noiseless in operation and completely weatherproof. For volume control, heavy duty center-pivoted dampers can be installed at the discharge of these ventilating sets.

## Access Doors

Two type of access doors are available: bolted or quick-opening. Access doors are specified where examination and cleaning of the fan interior is required.



## Variable Inlet Vanes

Variable inlet vanes provide economical, stable and efficient air volume control for manual or motorized operation. Low maintenance, easy assembly or disassembly, and long life are prime features of this vane design. Blades are supported by needle roller bearings riding on fatigue resistant steel shafts, hardened to minimize wear. Bearings are lubricated for life with high grade moisture-resistant grease and protected with quality seals. The vane bearing housings are welded in position and stiffened with a welded support ring. The welded structure eliminates flutter and vibration while still utilizing the efficiency of a cantilevered design.

Two types of inlet vanes are offered, depending on fan size. Inlet vanes for the 12, 13, and 15 are external type, bolted to the fan inlet flange. Inlet vanes for the size 16 and larger are supplied as nested type, with the inlet vane blades nested within the inlet cone and all linkages internal to the fan. (Nested style inlet vanes shown.)

## Belt Guard

Standard belt guards are of the open back style, and are readily removable for belt or pulley adjustments. For OSHA-style belt guards, see notes on weather cover.

## Additional Accessories

- Inlet flange
- Outlet flange
- Drain connection
- Disconnect switch
- Vibration isolation pads
- Rails and hangers
- Inlet screen
- Outlet screen

# UL 705 and UL 762

Model VSBC fans are available with optional UL705 and UL762 packages.

These optional packages include:

**UL705 Package**

- Weather cover with oversized cooling slots
- UL705 label

**UL762 Package**

- Weather cover with oversized cooling slots
- Bolted access door
- Drain connection
- Backplate fins
- UL762 label

UL762 is available in upblast and top angular up discharge only. For UL762, grease pans, disconnect switches, stacks or fan platforms are not included. Fans must be installed per local codes and NFPA 96. Most ODP and TEFC motors are available. American Coolair Corporation reserves the right to specify motor suppliers.

# Optional Construction

## High Temperature Construction

Standard fan design options are available to handle airstream temperatures to 600°F. Consult your American Coolair representative for applications over 600°F. High temperature operating limits and necessary modifications are shown in Table 1.

*Table 1. High Temperature Construction Requirements*

| TEMPERATURE (°F) | WHEEL MATERIAL | BEARING LUBRICATION | OTHER REQUIREMENTS |
|---|---|---|---|
| -20° TO 250°F | Riveted Aluminum on 12-27 VSBC Class I. All others Steel | Grease | Standard Fan |
| 251° TO 300°F | Steel | Grease | Standard Fan |
| 301° TO 500°F | Steel | High Temperature Grease | Shaft cooler, Shaft Seal, Expansion & Non-Expansion Bearings; Class II; Insulated Heat Gap |
| 501° TO 600°F ClassII Only | Steel | High Temperature Grease | Shaft cooler, Shaft Seal, Expansion & Non-Expansion Bearings; High Temperature Aluminum Paint, Insulated Heat Gap |

When selecting the performances at elevated temperatures and altitudes, refer to the method used in engineering bulletin 2002-10 page 11.

## Spark Resistant Construction

| AMCA TYPE | FAN CONSTRUCTION |
|---|---|
| A | All Airstream Parts are Aluminum (Wheel, Housing, and Shaft Seal). Limited to 250°F. |
| B | Aluminum Wheel And Rubbing Plate. Limited to 250°F. |
| C | To 250°F - 12 to 27 VSBC Class I: Aluminum Wheel and Rubbing Plate. |
| | 251° To 500°F - 12 to 27 VSBC Class I & II: Steel Wheel, Aluminum Inlet Cone and Rubbing Plate. |
| | All others to 500°F - Aluminum Inlet Cone and Rubbing Plate. |

**NOTES:**

1. Bearings shall be placed outside the airstream.
2. The user shall electrically ground all fan parts.
3. The use of the above standard in no way implies a guarantee of safety for any level of spark resistance. "Spark resistant construction also does not protect against ignition of explosive gases caused by catastrophic failure or from any airstream material that may be present in the system."

# Engineering Data

### Derating Factors For High Temperature

Fan operation at high temperature adversely affects the strength of fan wheels. As a result, the maximum safe speed (RPM) of the fan from Table 3 must be derated by the temperature factor from Table 2.

**Example**: Maximum safe speed at 400°F for a size 24 VSBC Class II steel wheel = 0.95 x 2033 = 1931 RPM
(2033 RPM is maximum RPM at 70°F).

*Table 2. Derating Factors for High Temperature*

| TEMPERATURE (°F) | ALUMINUM | STANDARD STEEL | STAINLESS STEEL |
|---|---|---|---|
| 70 | 1.00 | 1.000 | 1.00 |
| 200 | 1.00 | 0.980 | 0.95 |
| 250 | 1.00 | 0.970 | 0.93 |
| 300 | - | 0.960 | 0.91 |
| 400 | - | 0.950 | 0.88 |
| 500 | - | 0.900 | 0.84 |
| 600 | - | 0.860 | 0.81 |

*Table 3. Maximum RPM at 70°F*

| SIZE | VSBC | | VSFC | | VSAC | |
|---|---|---|---|---|---|---|
| | CLASS I | CLASS II | CLASS I | CLASS II | CLASS I | CLASS II |
| 12 | 3167 | 4119 | 1559 | 1871 | 3990 | 5205 |
| 13 | 2874 | 3738 | 1415 | 1698 | 3265 | 4259 |
| 15 | 2587 | 3364 | 1273 | 1528 | 3260 | 4252 |
| 16 | 2352 | 3058 | 1157 | 1389 | 2673 | 3487 |
| 18 | 2118 | 2729 | 1046 | 1256 | 2294 | 2902 |
| 20 | 1932 | 2490 | 955 | 1146 | 2093 | 2648 |
| 22 | 1737 | 2238 | 858 | 1030 | 1881 | 2381 |
| 24 | 1577 | 2033 | 780 | 935 | 1708 | 2162 |
| 27 | 1397 | 1803 | 707 | 849 | 1558 | 1999 |
| 30 | 1257 | 1623 | 637 | 764 | 1402 | 1799 |
| 33 | 1143 | 1475 | 579 | 694 | 1275 | 1636 |
| 36 | 995 | 1283 | 523 | 628 | 1071 | 1388 |

*Table 4. Bare Fan Weights (lb)*

| SIZE | CLASS I | CLASS II |
|---|---|---|
| 12 | 121 | 133 |
| 13 | 139 | 153 |
| 15 | 162 | 178 |
| 16 | 198 | 218 |
| 18 | 220 | 242 |
| 20 | 287 | 316 |
| 22 | 348 | 383 |
| 24 | 453 | 498 |
| 27 | 507 | 559 |
| 30 | 662 | 728 |
| 33 | 758 | 834 |
| 36 | 940 | 1034 |

# Performance Data

## VSBC12

**Outlet Area - 0.86 ft$^2$ Wheel Dia. - 12.25 Inches Tip Speed - 3.21 x RPM Max. BHP = 0.076 (RPM/1000)$^3$**

| | | 0.25" | | 0.5" | | 1" | | 1.5" | | 2" | | 3" | | 4" | | 5" | | 6" | | 7" | | 8" | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CFM | OV | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 688 | 800 | 869 | 0.05 | 1044 | 0.08 | 1335 | 0.17 | | | | | | | | | | | | | | | | |
| 860 | 1000 | 994 | 0.07 | 1152 | 0.12 | 1413 | 0.21 | 1642 | 0.31 | | | | | | | | | | | | | | |
| 1032 | 1200 | 1123 | 0.11 | 1271 | 0.16 | 1512 | 0.26 | 1720 | 0.37 | 1911 | 0.49 | | | | | | | | | | | | |
| 1204 | 1400 | 1256 | 0.15 | 1397 | 0.21 | 1622 | 0.32 | 1816 | 0.45 | 1992 | 0.58 | 2317 | 0.87 | | | | | | | | | | |
| 1376 | 1600 | 1396 | 0.20 | 1525 | 0.27 | 1738 | 0.40 | 1922 | 0.54 | 2088 | 0.68 | 2390 | 0.98 | 2671 | 1.33 | | | | | | | | |
| 1548 | 1800 | 1539 | 0.27 | 1655 | 0.34 | 1861 | 0.49 | 2035 | 0.64 | 2193 | 0.79 | 2480 | 1.12 | 2741 | 1.48 | 2989 | 1.87 | | | | | | |
| 1720 | 2000 | 1685 | 0.36 | 1790 | 0.43 | 1988 | 0.60 | 2154 | 0.76 | 2305 | 0.93 | 2578 | 1.27 | 2827 | 1.65 | 3059 | 2.05 | **3283** | **2.48** | **3500** | **2.94** | | |
| 1892 | 2200 | 1834 | 0.46 | 1929 | 0.54 | 2116 | 0.72 | 2277 | 0.90 | 2421 | 1.08 | 2683 | 1.45 | 2922 | 1.84 | 3144 | 2.26 | **3355** | **2.71** | **3559** | **3.18** | **3758** | **3.67** |
| 2064 | 2400 | 1984 | 0.58 | 2072 | 0.66 | 2245 | 0.86 | 2403 | 1.06 | 2542 | 1.25 | 2794 | 1.65 | 3023 | 2.06 | **3238** | **2.50** | **3440** | **2.96** | **3633** | **3.44** | **3821** | **3.95** |
| 2236 | 2600 | 2135 | 0.72 | 2216 | 0.81 | 2377 | 1.01 | 2531 | 1.23 | 2667 | 1.44 | 2909 | 1.87 | 3131 | 2.31 | **3337** | **2.77** | **3533** | **3.25** | **3719** | **3.75** | **3898** | **4.27** |
| 2408 | 2800 | 2287 | 0.88 | 2363 | 0.98 | 2512 | 1.19 | 2659 | 1.42 | 2793 | 1.66 | 3028 | 2.11 | **3243** | **2.58** | **3442** | **3.06** | **3631** | **3.56** | **3812** | **4.08** | **3985** | **4.61** |
| 2580 | 3000 | 2439 | 1.07 | 2511 | 1.17 | 2650 | 1.40 | 2789 | 1.64 | 2921 | 1.89 | 3151 | 2.38 | **3358** | **2.88** | **3552** | **3.39** | **3735** | **3.90** | **3910** | **4.44** | **4079** | **5.00** |
| 2752 | 3200 | 2593 | 1.28 | 2660 | 1.39 | 2791 | 1.63 | 2922 | 1.88 | 3049 | 2.15 | **3276** | **2.68** | **3477** | **3.20** | **3665** | **3.74** | **3843** | **4.28** | **4013** | **4.83** | | |
| 2924 | 3400 | 2746 | 1.52 | 2810 | 1.64 | 2934 | 1.89 | 3057 | 2.15 | **3179** | **2.43** | **3402** | **2.99** | **3599** | **3.55** | **3781** | **4.11** | **3955** | **4.69** | | | | |
| 3096 | 3600 | 2901 | 1.79 | 2961 | 1.92 | 3078 | 2.17 | **3194** | **2.45** | **3310** | **2.74** | **3530** | **3.34** | **3723** | **3.93** | **3901** | **4.52** | **4070** | **5.12** | | | | |
| 3268 | 3800 | 3055 | 2.09 | 3112 | 2.22 | **3224** | **2.49** | **3334** | **2.78** | **3444** | **3.08** | **3658** | **3.71** | **3849** | **4.34** | **4023** | **4.96** | | | | | | |

**MAXIMUM RPM:** Class I - 3167 Class II - 4119 Selections above 4000 RPM not recommended. Consult factory.

## VSBC13

**Outlet Area - 1.05 ft$^2$ Wheel Dia. - 13.50 Inches Tip Speed - 3.53 x RPM Max. BHP = 0.124 (RPM/1000)$^3$**

| | | 0.25" | | 0.5" | | 1" | | 1.5" | | 2" | | 3" | | 4" | | 5" | | 6" | | 7" | | 8" | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CFM | OV | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 840 | 800 | 791 | 0.06 | 949 | 0.10 | 1213 | 0.20 | | | | | | | | | | | | | | | | |
| 1050 | 1000 | 905 | 0.09 | 1048 | 0.14 | 1285 | 0.25 | 1491 | 0.38 | | | | | | | | | | | | | | |
| 1260 | 1200 | 1022 | 0.13 | 1157 | 0.19 | 1375 | 0.32 | 1563 | 0.45 | 1736 | 0.60 | | | | | | | | | | | | |
| 1470 | 1400 | 1144 | 0.18 | 1272 | 0.25 | 1475 | 0.40 | 1651 | 0.54 | 1811 | 0.70 | 2105 | 1.06 | | | | | | | | | | |
| 1680 | 1600 | 1272 | 0.25 | 1388 | 0.33 | 1582 | 0.49 | 1748 | 0.65 | 1899 | 0.83 | 2172 | 1.20 | 2426 | 1.62 | | | | | | | | |
| 1890 | 1800 | 1403 | 0.33 | 1508 | 0.42 | 1695 | 0.60 | 1851 | 0.78 | 1995 | 0.97 | 2254 | 1.37 | 2490 | 1.80 | 2715 | 2.28 | | | | | | |
| 2100 | 2000 | 1537 | 0.44 | 1631 | 0.53 | 1810 | 0.73 | 1960 | 0.93 | 2097 | 1.14 | 2344 | 1.56 | 2570 | 2.02 | 2780 | 2.50 | **2982** | **3.03** | **3178** | **3.58** | | |
| 2310 | 2200 | 1672 | 0.56 | 1758 | 0.66 | 1927 | 0.88 | 2073 | 1.10 | 2203 | 1.32 | 2441 | 1.78 | 2657 | 2.26 | 2858 | 2.77 | **3048** | **3.30** | **3233** | **3.87** | **3413** | **4.48** |
| 2520 | 2400 | 1809 | 0.71 | 1888 | 0.82 | 2045 | 1.05 | 2188 | 1.29 | 2314 | 1.53 | 2542 | 2.02 | 2750 | 2.53 | **2944** | **3.06** | **3126** | **3.62** | **3301** | **4.20** | **3472** | **4.82** |
| 2730 | 2600 | 1946 | 0.88 | 2020 | 1.00 | 2165 | 1.24 | 2304 | 1.51 | 2428 | 1.77 | 2647 | 2.29 | 2848 | 2.83 | **3035** | **3.39** | **3212** | **3.97** | **3380** | **4.57** | **3542** | **5.21** |
| 2940 | 2800 | 2085 | 1.09 | 2154 | 1.21 | 2289 | 1.47 | 2422 | 1.75 | 2543 | 2.03 | 2756 | 2.59 | **2950** | **3.16** | **3131** | **3.75** | **3302** | **4.35** | **3466** | **4.98** | **3622** | **5.64** |
| 3150 | 3000 | 2224 | 1.32 | 2289 | 1.45 | 2415 | 1.72 | 2541 | 2.02 | 2660 | 2.32 | 2868 | 2.92 | **3056** | **3.53** | **3231** | **4.14** | **3397** | **4.78** | **3555** | **5.42** | **3708** | **6.10** |
| 3360 | 3200 | 2364 | 1.58 | 2425 | 1.72 | 2544 | 2.00 | 2662 | 2.31 | 2777 | 2.64 | **2982** | **3.28** | **3164** | **3.92** | **3335** | **4.58** | **3496** | **5.24** | **3649** | **5.91** | | |
| 3570 | 3400 | 2505 | 1.88 | 2562 | 2.02 | 2674 | 2.32 | 2785 | 2.64 | **2895** | **2.98** | **3098** | **3.68** | **3276** | **4.35** | **3441** | **5.04** | **3598** | **5.74** | | | | |
| 3780 | 3600 | 2646 | 2.21 | 2700 | 2.36 | 2806 | 2.68 | **2910** | **3.01** | **3015** | **3.36** | **3214** | **4.10** | **3389** | **4.82** | **3550** | **5.54** | **3703** | **6.27** | | | | |
| 3990 | 3800 | 2787 | 2.58 | 2838 | 2.74 | **2939** | **3.07** | **3038** | **3.41** | **3138** | **3.78** | **3331** | **4.56** | **3504** | **5.32** | **3661** | **6.08** | | | | | | |

**MAXIMUM RPM:** Class I - 2874 Class II - 3738

## VSBC15

**Outlet Area - 1.29 ft$^2$ Wheel Dia. - 15.00 Inches Tip Speed - 3.93 x RPM Max. BHP = 0.211 (RPM/1000)$^3$**

| | | 0.25" | | 0.5" | | 1" | | 1.5" | | 2" | | 3" | | 4" | | 5" | | 6" | | 7" | | 8" | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CFM | OV | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 1032 | 800 | 710 | 0.08 | 853 | 0.13 | 1091 | 0.25 | | | | | | | | | | | | | | | | |
| 1290 | 1000 | 812 | 0.11 | 941 | 0.17 | 1154 | 0.31 | 1341 | 0.47 | | | | | | | | | | | | | | |
| 1548 | 1200 | 917 | 0.16 | 1038 | 0.23 | 1235 | 0.39 | 1405 | 0.56 | 1561 | 0.74 | | | | | | | | | | | | |
| 1806 | 1400 | 1026 | 0.22 | 1141 | 0.31 | 1325 | 0.49 | 1483 | 0.67 | 1627 | 0.86 | 1893 | 1.31 | | | | | | | | | | |
| 2064 | 1600 | 1140 | 0.31 | 1245 | 0.40 | 1420 | 0.60 | 1570 | 0.80 | 1706 | 1.01 | 1952 | 1.48 | 2181 | 1.99 | | | | | | | | |
| 2322 | 1800 | 1257 | 0.41 | 1352 | 0.51 | 1521 | 0.74 | 1662 | 0.96 | 1791 | 1.19 | 2026 | 1.68 | 2238 | 2.21 | 2441 | 2.80 | | | | | | |
| 2580 | 2000 | 1377 | 0.53 | 1462 | 0.65 | 1624 | 0.90 | 1759 | 1.14 | 1882 | 1.39 | 2106 | 1.91 | 2309 | 2.47 | 2499 | 3.08 | **2682** | **3.72** | **2858** | **4.41** | | |
| 2838 | 2200 | 1498 | 0.69 | 1576 | 0.81 | 1728 | 1.08 | 1860 | 1.35 | 1978 | 1.62 | 2192 | 2.18 | 2387 | 2.77 | 2568 | 3.40 | **2740** | **4.06** | **2907** | **4.76** | **3070** | **5.51** |
| 3096 | 2400 | 1621 | 0.87 | 1692 | 1.00 | 1834 | 1.28 | 1963 | 1.58 | 2077 | 1.88 | 2283 | 2.48 | 2470 | 3.10 | **2645** | **3.76** | **2809** | **4.44** | **2967** | **5.17** | **3121** | **5.93** |
| 3354 | 2600 | 1744 | 1.08 | 1811 | 1.22 | 1942 | 1.52 | 2067 | 1.85 | 2178 | 2.17 | 2376 | 2.81 | 2557 | 3.47 | **2726** | **4.15** | **2886** | **4.87** | **3037** | **5.62** | **3183** | **6.39** |
| 3612 | 2800 | 1868 | 1.32 | 1930 | 1.47 | 2052 | 1.79 | 2172 | 2.14 | 2282 | 2.49 | 2474 | 3.18 | **2649** | **3.88** | **2812** | **4.60** | **2966** | **5.34** | **3114** | **6.12** | **3255** | **6.92** |
| 3870 | 3000 | 1993 | 1.60 | 2051 | 1.76 | 2165 | 2.10 | 2279 | 2.46 | 2386 | 2.84 | 2574 | 3.58 | **2743** | **4.32** | **2902** | **5.08** | **3051** | **5.86** | **3194** | **6.66** | **3331** | **7.49** |
| 4128 | 3200 | 2118 | 1.92 | 2173 | 2.09 | 2280 | 2.44 | 2387 | 2.82 | 2491 | 3.22 | **2676** | **4.02** | **2840** | **4.80** | **2994** | **5.61** | **3139** | **6.42** | **3278** | **7.25** | | |
| 4386 | 3400 | 2244 | 2.29 | 2295 | 2.46 | 2397 | 2.83 | 2497 | 3.22 | **2597** | **3.65** | **2779** | **4.49** | **2940** | **5.33** | **3089** | **6.17** | **3231** | **7.03** | | | | |
| 4644 | 3600 | 2370 | 2.69 | 2419 | 2.88 | 2515 | 3.26 | **2609** | **3.67** | **2704** | **4.11** | **2884** | **5.02** | **3041** | **5.90** | **3186** | **6.78** | **3324** | **7.68** | | | | |
| 4902 | 3800 | 2496 | 3.14 | 2543 | 3.34 | **2634** | **3.74** | **2724** | **4.17** | **2814** | **4.62** | **2988** | **5.57** | **3144** | **6.51** | **3286** | **7.44** | | | | | | |

**MAXIMUM RPM:** Class I - 2587 Class II - 3364

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

Class I fans are shown non-shaded.
Class II fans are shown shaded.

# Performance Data

## VSBC16

**Outlet Area - 1.57 ft$^2$ Wheel Dia. - 16.50 Inches Tip Speed - 4.32 x RPM Max. BHP = 0.339 (RPM/1000)$^3$**

| | | 0.25" | | 0.5" | | 1" | | 1.5" | | 2" | | 3" | | 4" | | 5" | | 6" | | 7" | | 8" | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CFM | OV | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 1256 | 800 | 648 | 0.09 | 777 | 0.15 | 992 | 0.30 | | | | | | | | | | | | | | | | |
| 1570 | 1000 | 741 | 0.14 | 858 | 0.21 | 1051 | 0.38 | 1220 | 0.57 | | | | | | | | | | | | | | |
| 1884 | 1200 | 837 | 0.20 | 947 | 0.29 | 1125 | 0.47 | 1279 | 0.68 | 1421 | 0.90 | | | | | | | | | | | | |
| 2198 | 1400 | 937 | 0.27 | 1041 | 0.38 | 1208 | 0.59 | 1351 | 0.81 | 1482 | 1.05 | 1722 | 1.59 | | | | | | | | | | |
| 2512 | 1600 | 1041 | 0.37 | 1137 | 0.49 | 1295 | 0.73 | 1431 | 0.98 | 1554 | 1.24 | 1778 | 1.80 | 1985 | 2.42 | | | | | | | | |
| 2826 | 1800 | 1149 | 0.50 | 1234 | 0.63 | 1387 | 0.90 | 1516 | 1.17 | 1633 | 1.45 | 1845 | 2.05 | 2038 | 2.70 | 2222 | 3.40 | | | | | | |
| 3140 | 2000 | 1258 | 0.66 | 1335 | 0.79 | 1482 | 1.10 | 1604 | 1.39 | 1716 | 1.70 | 1919 | 2.33 | 2103 | 3.01 | 2275 | 3.74 | **2441** | **4.53** | **2601** | **5.36** | | |
| 3454 | 2200 | 1369 | 0.84 | 1440 | 0.99 | 1577 | 1.32 | 1697 | 1.65 | 1803 | 1.98 | 1998 | 2.66 | 2174 | 3.37 | 2339 | 4.14 | **2495** | **4.94** | **2646** | **5.80** | **2793** | **6.69** |
| 3768 | 2400 | 1481 | 1.06 | 1546 | 1.22 | 1674 | 1.57 | 1791 | 1.94 | 1894 | 2.29 | 2081 | 3.03 | 2250 | 3.78 | **2409** | **4.57** | **2559** | **5.41** | **2702** | **6.29** | **2841** | **7.21** |
| 4082 | 2600 | 1594 | 1.33 | 1654 | 1.49 | 1773 | 1.86 | 1887 | 2.26 | 1987 | 2.65 | 2167 | 3.43 | 2331 | 4.23 | **2484** | **5.06** | **2629** | **5.93** | **2766** | **6.84** | **2899** | **7.79** |
| 4396 | 2800 | 1707 | 1.63 | 1764 | 1.81 | 1874 | 2.19 | 1983 | 2.62 | 2082 | 3.04 | 2256 | 3.88 | **2415** | **4.73** | **2563** | **5.61** | **2702** | **6.50** | **2836** | **7.45** | **2964** | **8.42** |
| 4710 | 3000 | 1822 | 1.97 | 1874 | 2.16 | 1977 | 2.57 | 2080 | 3.01 | 2177 | 3.47 | 2348 | 4.37 | **2501** | **5.28** | **2645** | **6.20** | **2780** | **7.14** | **2910** | **8.12** | **3035** | **9.13** |
| 5024 | 3200 | 1936 | 2.37 | 1986 | 2.57 | 2083 | 3.00 | 2179 | 3.46 | 2273 | 3.95 | **2441** | **4.91** | **2590** | **5.87** | **2730** | **6.85** | **2862** | **7.84** | **2987** | **8.84** | | |
| 5338 | 3400 | 2051 | 2.81 | 2098 | 3.03 | 2190 | 3.48 | 2280 | 3.95 | **2370** | **4.46** | **2536** | **5.50** | **2682** | **6.52** | **2817** | **7.54** | **2945** | **8.58** | | | | |
| 5652 | 3600 | 2166 | 3.31 | 2211 | 3.54 | 2298 | **4.01** | **2383** | **4.50** | **2469** | **5.04** | **2631** | **6.13** | **2774** | **7.21** | **2906** | **8.29** | **3031** | **9.38** | | | | |
| 5966 | 3800 | 2282 | 3.87 | 2324 | 4.11 | **2407** | **4.60** | **2488** | **5.11** | **2569** | **5.66** | **2727** | **6.82** | **2869** | **7.97** | **2997** | **9.09** | | | | | | |

**MAXIMUM RPM:** Class I - 2352 Class II - 3058

## VSBC18

**Outlet Area - 1.92 ft$^2$ Wheel Dia. - 18.25 Inches Tip Speed - 4.78 x RPM Max. BHP = 0.552 (RPM/1000)$^3$**

| | | 0.25" | | 0.5" | | 1" | | 1.5" | | 2" | | 3" | | 4" | | 5" | | 6" | | 7" | | 8" | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CFM | OV | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 1536 | 800 | 569 | 0.10 | 695 | 0.17 | | | | | | | | | | | | | | | | | | |
| 1920 | 1000 | 651 | 0.15 | 757 | 0.24 | 951 | 0.42 | 1126 | 0.64 | | | | | | | | | | | | | | |
| 2304 | 1200 | 741 | 0.22 | 831 | 0.32 | 1002 | 0.53 | 1160 | 0.76 | 1306 | 1.02 | | | | | | | | | | | | |
| 2688 | 1400 | 835 | 0.31 | 914 | 0.42 | 1066 | 0.66 | 1208 | 0.91 | 1342 | 1.19 | | | | | | | | | | | | |
| 3072 | 1600 | 933 | 0.43 | 1003 | 0.55 | 1138 | 0.81 | 1267 | 1.09 | 1391 | 1.39 | 1621 | 2.03 | | | | | | | | | | |
| 3456 | 1800 | 1032 | 0.57 | 1096 | 0.71 | 1217 | 1.00 | 1335 | 1.30 | 1449 | 1.62 | 1663 | 2.30 | 1864 | 3.06 | | | | | | | | |
| 3840 | 2000 | 1133 | 0.75 | 1191 | 0.91 | 1302 | 1.22 | 1409 | 1.55 | 1514 | 1.88 | 1714 | 2.61 | 1903 | 3.40 | **2081** | **4.24** | **2252** | **5.15** | | | | |
| 4224 | 2200 | 1235 | 0.96 | 1288 | 1.13 | 1391 | 1.48 | 1489 | 1.83 | 1586 | 2.20 | 1773 | 2.96 | 1950 | 3.78 | **2120** | **4.67** | **2282** | **5.60** | **2437** | **6.58** | | |
| 4608 | 2400 | 1338 | 1.22 | 1387 | 1.40 | 1482 | 1.78 | 1573 | 2.16 | 1663 | 2.55 | 1838 | 3.36 | 2005 | 4.22 | **2165** | **5.13** | **2320** | **6.11** | **2469** | **7.13** | **2612** | **8.18** |
| 4992 | 2600 | 1441 | 1.51 | 1487 | 1.71 | 1576 | 2.12 | 1661 | 2.53 | 1744 | 2.94 | 1908 | 3.81 | 2066 | 4.71 | **2218** | **5.66** | **2365** | **6.67** | **2507** | **7.72** | **2645** | **8.81** |
| 5376 | 2800 | 1545 | 1.85 | 1588 | 2.07 | 1671 | 2.50 | 1751 | 2.94 | 1829 | 3.39 | 1982 | 4.30 | **2132** | **5.25** | **2276** | **6.25** | **2416** | **7.28** | **2553** | **8.38** | **2685** | **9.51** |
| 5760 | 3000 | 1650 | 2.25 | 1689 | 2.47 | 1768 | 2.94 | 1843 | 3.41 | 1917 | 3.88 | 2061 | 4.86 | **2202** | **5.85** | **2340** | **6.89** | **2473** | **7.97** | **2604** | **9.09** | | |
| 6144 | 3200 | 1754 | 2.69 | 1792 | 2.94 | 1865 | 3.43 | 1937 | 3.93 | 2007 | 4.43 | **2143** | **5.46** | **2276** | **6.51** | **2407** | **7.59** | **2535** | **8.72** | **2660** | **9.88** | | |
| 6528 | 3400 | 1859 | 3.19 | 1895 | 3.46 | 1964 | 3.98 | 2032 | 4.50 | 2099 | 5.04 | **2227** | **6.12** | **2354** | **7.23** | **2479** | **8.36** | **2601** | **9.53** | **2720** | **10.73** | | |
| 6912 | 3600 | 1965 | 3.76 | 1998 | 4.03 | 2064 | 4.59 | **2129** | **5.15** | **2192** | **5.71** | **2315** | **6.85** | **2435** | **8.01** | **2554** | **9.20** | **2670** | **10.40** | | | | |
| 7296 | 3800 | 2070 | 4.39 | 2102 | 4.68 | **2165** | **5.26** | **2226** | **5.85** | **2287** | **6.45** | **2404** | **7.64** | **2518** | **8.85** | **2631** | **10.09** | | | | | | |

**MAXIMUM RPM:** Class I - 2118 Class II - 2729

## VSBC20

**Outlet Area - 2.30 ft$^2$ Wheel Dia. - 20.00 Inches Tip Speed - 5.24 x RPM Max. BHP = 0.872 (RPM/1000)$^3$**

| | | 0.25" | | 0.5" | | 1" | | 1.5" | | 2" | | 3" | | 4" | | 5" | | 6" | | 7" | | 8" | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CFM | OV | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 1840 | 800 | 519 | 0.12 | 634 | 0.21 | | | | | | | | | | | | | | | | | | |
| 2300 | 1000 | 593 | 0.18 | 690 | 0.28 | 868 | 0.51 | 1027 | 0.77 | | | | | | | | | | | | | | |
| 2760 | 1200 | 675 | 0.27 | 758 | 0.38 | 914 | 0.63 | 1058 | 0.91 | 1191 | 1.22 | | | | | | | | | | | | |
| 3220 | 1400 | 761 | 0.37 | 833 | 0.51 | 971 | 0.78 | 1102 | 1.09 | 1224 | 1.42 | | | | | | | | | | | | |
| 3680 | 1600 | 849 | 0.51 | 914 | 0.66 | 1037 | 0.97 | 1155 | 1.30 | 1268 | 1.66 | 1479 | 2.44 | | | | | | | | | | |
| 4140 | 1800 | 940 | 0.68 | 998 | 0.85 | 1109 | 1.20 | 1217 | 1.56 | 1321 | 1.94 | 1517 | 2.76 | 1700 | 3.66 | | | | | | | | |
| 4600 | 2000 | 1031 | 0.89 | 1085 | 1.08 | 1186 | 1.46 | 1284 | 1.85 | 1380 | 2.25 | 1563 | 3.12 | 1735 | 4.07 | 1899 | 5.09 | **2054** | **6.17** | | | | |
| 5060 | 2200 | 1124 | 1.15 | 1173 | 1.35 | 1267 | 1.77 | 1357 | 2.19 | 1445 | 2.62 | 1616 | 3.54 | 1778 | 4.53 | **1933** | **5.59** | **2081** | **6.71** | **2223** | **7.89** | | |
| 5520 | 2400 | 1218 | 1.45 | 1263 | 1.67 | 1350 | 2.12 | 1433 | 2.58 | 1515 | 3.05 | 1675 | 4.02 | 1828 | 5.05 | **1975** | **6.15** | **2116** | **7.32** | **2252** | **8.54** | **2383** | **9.81** |
| 5980 | 2600 | 1312 | 1.80 | 1354 | 2.04 | 1435 | 2.53 | 1513 | 3.02 | 1589 | 3.52 | 1739 | 4.55 | 1883 | 5.64 | **2022** | **6.78** | **2157** | **7.99** | **2287** | **9.25** | **2413** | **10.56** |
| 6440 | 2800 | 1407 | 2.21 | 1446 | 2.47 | 1522 | 2.99 | 1595 | 3.52 | 1666 | 4.05 | 1806 | 5.14 | **1943** | **6.28** | **2075** | **7.48** | **2203** | **8.72** | **2328** | **10.03** | **2449** | **11.39** |
| 6900 | 3000 | 1502 | 2.68 | 1538 | 2.95 | 1610 | 3.51 | 1679 | 4.07 | 1746 | 4.64 | 1878 | 5.81 | **2007** | **7.00** | **2133** | **8.25** | **2255** | **9.54** | **2374** | **10.88** | **2490** | **12.28** |
| 7360 | 3200 | 1597 | 3.21 | 1631 | 3.50 | 1699 | 4.10 | 1764 | 4.69 | 1828 | 5.30 | **1952** | **6.52** | **2074** | **7.78** | **2194** | **9.08** | **2311** | **10.43** | **2425** | **11.82** | | |
| 7820 | 3400 | 1692 | 3.81 | 1725 | 4.12 | 1789 | 4.75 | 1851 | 5.38 | 1911 | 6.02 | **2029** | **7.31** | **2145** | **8.65** | **2259** | **10.00** | **2371** | **11.40** | **2480** | **12.84** | | |
| 8280 | 3600 | 1788 | 4.48 | 1819 | 4.81 | 1879 | 5.47 | **1938** | **6.14** | **1996** | **6.82** | **2108** | **8.18** | **2218** | **9.57** | **2327** | **11.00** | **2434** | **12.45** | | | | |
| 8740 | 3800 | 1884 | 5.23 | 1913 | 5.58 | **1971** | **6.28** | **2027** | **6.98** | **2082** | **7.69** | **2189** | **9.12** | **2294** | **10.58** | **2398** | **12.08** | | | | | | |

**MAXIMUM RPM:** Class I - 1932 Class II - 2490

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

Class I fans are shown non-shaded.
Class II fans are shown shaded.

# Performance Data

## VSBC22

**Outlet Area - 2.85 ft$^2$ Wheel Dia. - 22.25 Inches Tip Speed - 5.83 x RPM Max. BHP = 1.49 (RPM/1000)$^3$**

| CFM | OV | 0.25" | | 0.5" | | 1" | | 1.5" | | 2" | | 3" | | 4" | | 5" | | 6" | | 7" | | 8" | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 2280 | 800 | 466 | 0.15 | 570 | 0.26 | | | | | | | | | | | | | | | | | | |
| 2850 | 1000 | 533 | 0.23 | 621 | 0.35 | 780 | 0.63 | 923 | 0.95 | | | | | | | | | | | | | | |
| 3420 | 1200 | 607 | 0.33 | 681 | 0.47 | 822 | 0.78 | 951 | 1.13 | 1071 | 1.52 | | | | | | | | | | | | |
| 3990 | 1400 | 685 | 0.46 | 749 | 0.63 | 874 | 0.97 | 991 | 1.35 | 1101 | 1.76 | | | | | | | | | | | | |
| 4560 | 1600 | 764 | 0.63 | 822 | 0.82 | 933 | 1.21 | 1039 | 1.62 | 1140 | 2.05 | 1330 | 3.02 | | | | | | | | | | |
| 5130 | 1800 | 846 | 0.85 | 898 | 1.06 | 998 | 1.49 | 1094 | 1.93 | 1188 | 2.40 | 1364 | 3.42 | 1528 | 4.53 | | | | | | | | |
| 5700 | 2000 | 928 | 1.11 | 976 | 1.34 | 1067 | 1.81 | 1155 | 2.29 | 1241 | 2.79 | 1405 | 3.87 | 1560 | 5.04 | 1707 | 6.30 | **1847** | **7.64** | | | | |
| 6270 | 2200 | 1012 | 1.43 | 1055 | 1.68 | 1139 | 2.19 | 1220 | 2.71 | 1300 | 3.26 | 1453 | 4.39 | 1599 | 5.61 | **1738** | **6.92** | **1871** | **8.31** | **1999** | **9.78** | | |
| 6840 | 2400 | 1096 | 1.80 | 1136 | 2.07 | 1214 | 2.63 | 1289 | 3.20 | 1363 | 3.78 | 1506 | 4.98 | 1644 | 6.27 | **1775** | **7.62** | **1902** | **9.06** | **2024** | **10.57** | **2142** | **12.15** |
| 7410 | 2600 | 1181 | 2.24 | 1218 | 2.53 | 1291 | 3.13 | 1361 | 3.74 | 1429 | 4.36 | 1564 | 5.64 | 1693 | 6.98 | **1818** | **8.40** | **1939** | **9.89** | **2056** | **11.46** | **2169** | **13.08** |
| 7980 | 2800 | 1266 | 2.75 | 1301 | 3.06 | 1369 | 3.71 | 1435 | 4.36 | 1499 | 5.02 | 1625 | 6.38 | **1747** | **7.78** | **1866** | **9.27** | **1981** | **10.81** | **2093** | **12.43** | **2202** | **14.12** |
| 8550 | 3000 | 1351 | 3.32 | 1384 | 3.67 | 1448 | 4.35 | 1510 | 5.05 | 1571 | 5.76 | 1689 | 7.20 | **1805** | **8.68** | **1918** | **10.22** | **2028** | **11.83** | **2135** | **13.50** | | |
| 9120 | 3200 | 1437 | 3.99 | 1468 | 4.35 | 1528 | 5.08 | 1587 | 5.82 | 1644 | 6.56 | **1756** | **8.09** | **1866** | **9.66** | **1973** | **11.25** | **2078** | **12.93** | **2180** | **14.64** | | |
| 9690 | 3400 | 1523 | 4.73 | 1552 | 5.11 | 1609 | 5.89 | 1665 | 6.68 | 1720 | 7.47 | **1825** | **9.07** | **1929** | **10.72** | **2032** | **12.40** | **2132** | **14.13** | **2230** | **15.92** | | |
| 10260 | 3600 | 1609 | 5.57 | 1637 | 5.98 | 1691 | 6.79 | **1744** | **7.62** | **1796** | **8.46** | **1897** | **10.15** | **1995** | **11.87** | **2093** | **13.64** | **2189** | **15.43** | | | | |
| 10830 | 3800 | 1696 | 6.50 | 1722 | 6.93 | **1773** | **7.79** | **1824** | **8.67** | **1874** | **9.55** | **1970** | **11.33** | **2064** | **13.14** | **2157** | **14.98** | | | | | | |

**MAXIMUM RPM:** Class I - 1737 Class II - 2238

## VSBC24

**Outlet Area - 3.45 ft$^2$ Wheel Dia. - 24.50 Inches Tip Speed - 6.41 x RPM Max. BHP = 2.40 (RPM/1000)$^3$**

| CFM | OV | 0.25" | | 0.5" | | 1" | | 1.5" | | 2" | | 3" | | 4" | | 5" | | 6" | | 7" | | 8" | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 2760 | 800 | 423 | 0.18 | 517 | 0.31 | | | | | | | | | | | | | | | | | | |
| 3450 | 1000 | 484 | 0.27 | 563 | 0.42 | 708 | 0.76 | 838 | 1.15 | | | | | | | | | | | | | | |
| 4140 | 1200 | 551 | 0.40 | 618 | 0.57 | 746 | 0.95 | 863 | 1.37 | 972 | 1.84 | | | | | | | | | | | | |
| 4830 | 1400 | 621 | 0.56 | 680 | 0.76 | 793 | 1.18 | 899 | 1.63 | 999 | 2.13 | | | | | | | | | | | | |
| 5520 | 1600 | 693 | 0.77 | 746 | 0.99 | 846 | 1.46 | 943 | 1.96 | 1035 | 2.49 | 1207 | 3.65 | | | | | | | | | | |
| 6210 | 1800 | 767 | 1.03 | 815 | 1.28 | 905 | 1.79 | 993 | 2.33 | 1078 | 2.90 | 1238 | 4.13 | 1388 | 5.49 | | | | | | | | |
| 6900 | 2000 | 842 | 1.34 | 885 | 1.62 | 968 | 2.19 | 1048 | 2.77 | 1126 | 3.38 | 1276 | 4.69 | 1416 | 6.10 | 1550 | 7.63 | **1677** | **9.25** | | | | |
| 7590 | 2200 | 917 | 1.72 | 957 | 2.03 | 1034 | 2.65 | 1107 | 3.28 | 1180 | 3.94 | 1319 | 5.32 | 1452 | 6.80 | **1578** | **8.38** | **1699** | **10.07** | **1815** | **11.84** | | |
| 8280 | 2400 | 994 | 2.18 | 1031 | 2.51 | 1101 | 3.17 | 1170 | 3.87 | 1237 | 4.57 | 1367 | 6.02 | 1492 | 7.58 | **1612** | **9.23** | **1727** | **10.97** | **1838** | **12.80** | **1945** | **14.71** |
| 8970 | 2600 | 1071 | 2.71 | 1105 | 3.06 | 1171 | 3.79 | 1235 | 4.53 | 1297 | 5.28 | 1419 | 6.82 | 1537 | 8.46 | **1651** | **10.18** | **1760** | **11.97** | **1867** | **13.88** | **1969** | **15.83** |
| 9660 | 2800 | 1148 | 3.32 | 1180 | 3.70 | 1242 | 4.48 | 1301 | 5.26 | 1360 | 6.07 | 1474 | 7.71 | **1586** | **9.43** | **1694** | **11.22** | **1798** | **13.07** | **1900** | **15.04** | **1999** | **17.08** |
| 10350 | 3000 | 1225 | 4.01 | 1255 | 4.42 | 1313 | 5.25 | 1370 | 6.10 | 1425 | 6.96 | 1532 | 8.70 | **1638** | **10.49** | **1741** | **12.37** | **1840** | **14.30** | **1938** | **16.33** | **2032** | **18.41** |
| 11040 | 3200 | 1303 | 4.81 | 1331 | 5.25 | 1386 | 6.13 | 1440 | 7.04 | 1492 | 7.94 | **1593** | **9.78** | **1693** | **11.67** | **1791** | **13.62** | **1886** | **15.64** | **1979** | **17.73** | | |
| 11730 | 3400 | 1381 | 5.71 | 1408 | 6.18 | 1460 | 7.12 | 1510 | 8.06 | 1560 | 9.03 | **1656** | **10.97** | **1751** | **12.97** | **1844** | **15.00** | **1935** | **17.09** | **2024** | **19.26** | | |
| 12420 | 3600 | 1459 | 6.72 | 1484 | 7.21 | 1534 | 8.21 | **1582** | **9.21** | **1629** | **10.22** | **1721** | **12.27** | **1810** | **14.35** | **1899** | **16.48** | **1986** | **18.65** | | | | |
| 13110 | 3800 | 1538 | 7.85 | 1561 | 8.36 | **1608** | **9.41** | **1654** | **10.46** | **1699** | **11.53** | **1787** | **13.69** | **1872** | **15.87** | **1957** | **18.11** | | | | | | |

**MAXIMUM RPM:** Class I - 1577 Class II - 2033

## VSBC27

**Outlet Area - 4.19 ft$^2$ Wheel Dia. - 27.00 Inches Tip Speed - 7.07 x RPM Max. BHP = 4.05 (RPM/1000)$^3$**

| CFM | OV | 0.25" | | 0.5" | | 1" | | 1.5" | | 2" | | 3" | | 4" | | 5" | | 6" | | 7" | | 8" | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 3352 | 800 | 380 | 0.22 | 457 | 0.36 | 592 | 0.72 | | | | | | | | | | | | | | | | |
| 4190 | 1000 | 437 | 0.33 | 504 | 0.50 | 621 | 0.89 | 726 | 1.33 | | | | | | | | | | | | | | |
| 5028 | 1200 | 498 | 0.48 | 557 | 0.69 | 661 | 1.11 | 755 | 1.59 | 843 | 2.12 | | | | | | | | | | | | |
| 5866 | 1400 | 561 | 0.68 | 614 | 0.91 | 709 | 1.40 | 795 | 1.92 | 875 | 2.48 | 1026 | 3.75 | | | | | | | | | | |
| 6704 | 1600 | 627 | 0.93 | 674 | 1.20 | 761 | 1.75 | 840 | 2.32 | 914 | 2.91 | 1051 | 4.21 | 1184 | 5.74 | | | | | | | | |
| 7542 | 1800 | 693 | 1.24 | 736 | 1.54 | 816 | 2.15 | 890 | 2.78 | 959 | 3.43 | 1088 | 4.82 | 1206 | 6.32 | 1324 | 8.05 | **1449** | **10.16** | | | | |
| 8380 | 2000 | 761 | 1.63 | 800 | 1.96 | 874 | 2.63 | 943 | 3.33 | 1007 | 4.02 | 1128 | 5.49 | 1241 | 7.08 | 1346 | 8.77 | **1452** | **10.68** | **1564** | **12.93** | | |
| 9218 | 2200 | 829 | 2.08 | 865 | 2.45 | 934 | 3.19 | 998 | 3.94 | 1059 | 4.70 | 1174 | 6.30 | 1280 | 7.95 | 1381 | 9.72 | **1476** | **11.58** | **1572** | **13.64** | **1672** | **15.99** |
| 10056 | 2400 | 898 | 2.63 | 932 | 3.04 | 995 | 3.83 | 1056 | 4.65 | 1113 | 5.47 | 1222 | 7.17 | 1323 | 8.93 | **1419** | **10.77** | **1511** | **12.72** | **1598** | **14.74** | **1686** | **16.95** |
| 10894 | 2600 | 968 | 3.28 | 999 | 3.71 | 1058 | 4.57 | 1115 | 5.45 | 1169 | 6.33 | 1272 | 8.14 | 1369 | 10.02 | **1461** | **11.95** | **1549** | **13.97** | **1633** | **16.07** | **1714** | **18.25** |
| 11732 | 2800 | 1038 | 4.02 | 1066 | 4.47 | 1122 | 5.41 | 1176 | 6.35 | 1227 | 7.29 | 1325 | 9.22 | **1418** | **11.22** | **1506** | **13.26** | **1590** | **15.36** | **1671** | **17.53** | **1750** | **19.82** |
| 12570 | 3000 | 1108 | 4.87 | 1135 | 5.36 | 1187 | 6.36 | 1238 | 7.37 | 1287 | 8.38 | 1380 | 10.42 | **1469** | **12.53** | **1553** | **14.68** | **1634** | **16.88** | **1712** | **19.14** | **1788** | **21.49** |
| 13408 | 3200 | 1178 | 5.83 | 1203 | 6.35 | 1253 | 7.42 | 1301 | 8.50 | 1348 | 9.58 | **1437** | **11.75** | **1521** | **13.95** | **1602** | **16.21** | **1681** | **18.56** | **1756** | **20.91** | | |
| 14246 | 3400 | 1248 | 6.91 | 1272 | 7.47 | 1320 | 8.62 | 1365 | 9.75 | **1409** | **10.88** | **1495** | **13.19** | **1576** | **15.53** | **1654** | **17.90** | **1729** | **20.32** | **1802** | **22.81** | | |
| 15084 | 3600 | 1319 | 8.14 | 1342 | 8.74 | 1387 | 9.94 | **1430** | **11.14** | **1472** | **12.34** | **1554** | **14.77** | **1632** | **17.22** | **1707** | **19.72** | **1779** | **22.23** | | | | |
| 15922 | 3800 | 1390 | 9.51 | **1412** | **10.14** | **1454** | **11.39** | **1495** | **12.65** | **1536** | **13.94** | **1614** | **16.48** | **1689** | **19.05** | **1762** | **21.70** | | | | | | |

**MAXIMUM RPM:** Class I - 1397 Class II - 1803

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

Class I fans are shown non-shaded.
Class II fans are shown shaded.

# Performance Data

## VSBC30

**Outlet Area - 5.17 ft$^2$ Wheel Dia. - 30.00 Inches Tip Speed - 7.85 x RPM Max. BHP = 6.86 (RPM/1000)$^3$**

| CFM | OV | 0.25" | | 0.5" | | 1" | | 1.5" | | 2" | | 3" | | 4" | | 5" | | 6" | | 7" | | 8" | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 4136 | 800 | 342 | 0.27 | 411 | 0.45 | 533 | 0.89 | | | | | | | | | | | | | | | | |
| 5170 | 1000 | 393 | 0.41 | 453 | 0.62 | 558 | 1.09 | 653 | 1.64 | | | | | | | | | | | | | | |
| 6204 | 1200 | 448 | 0.59 | 501 | 0.84 | 595 | 1.38 | 680 | 1.96 | 758 | 2.61 | | | | | | | | | | | | |
| 7238 | 1400 | 505 | 0.84 | 552 | 1.12 | 638 | 1.73 | 715 | 2.36 | 787 | 3.05 | 923 | 4.63 | | | | | | | | | | |
| 8272 | 1600 | 564 | 1.15 | 606 | 1.47 | 684 | 2.15 | 756 | 2.86 | 823 | 3.60 | 946 | 5.20 | 1065 | 7.08 | | | | | | | | |
| 9306 | 1800 | 624 | 1.53 | 662 | 1.90 | 734 | 2.65 | 801 | 3.44 | 863 | 4.24 | 979 | 5.94 | 1085 | 7.79 | 1192 | 9.95 | **1304** | **12.53** | | | | |
| 10340 | 2000 | 685 | 2.01 | 720 | 2.42 | 786 | 3.24 | 848 | 4.09 | 906 | 4.96 | 1015 | 6.78 | 1117 | 8.75 | 1212 | 10.84 | **1307** | **13.18** | **1408** | **15.98** | | |
| 11374 | 2200 | 746 | 2.57 | 778 | 3.02 | 840 | 3.93 | 898 | 4.86 | 953 | 5.80 | 1056 | 7.76 | 1152 | 9.81 | 1242 | 11.98 | **1329** | **14.31** | **1415** | **16.84** | **1505** | **19.75** |
| 12408 | 2400 | 808 | 3.24 | 838 | 3.74 | 895 | 4.72 | 950 | 5.73 | 1002 | 6.76 | 1099 | 8.84 | 1190 | 11.00 | **1277** | **13.29** | **1359** | **15.67** | **1438** | **18.18** | **1517** | **20.90** |
| 13442 | 2600 | 871 | 4.04 | 898 | 4.56 | 952 | 5.64 | 1003 | 6.71 | 1052 | 7.81 | 1145 | 10.05 | 1232 | 12.36 | **1314** | **14.73** | **1394** | **17.24** | **1470** | **19.85** | **1543** | **22.55** |
| 14476 | 2800 | 933 | 4.94 | 959 | 5.51 | 1010 | 6.68 | 1058 | 7.84 | 1104 | 8.99 | 1192 | 11.37 | **1276** | **13.84** | **1355** | **16.36** | **1430** | **18.92** | **1504** | **21.64** | **1575** | **24.46** |
| 15510 | 3000 | 996 | 5.99 | 1021 | 6.61 | 1068 | 7.84 | 1114 | 9.09 | 1158 | 10.33 | 1242 | 12.87 | **1321** | **15.43** | **1397** | **18.09** | **1470** | **20.82** | **1540** | **23.59** | **1609** | **26.51** |
| 16544 | 3200 | 1060 | 7.20 | 1083 | 7.85 | 1127 | 9.15 | 1171 | 10.49 | 1212 | 11.79 | **1293** | **14.49** | **1369** | **17.22** | **1442** | **20.02** | **1512** | **22.87** | **1580** | **25.79** | | |
| 17578 | 3400 | 1123 | 8.53 | 1145 | 9.23 | 1187 | 10.62 | 1228 | 12.02 | **1268** | **13.43** | **1345** | **16.27** | **1418** | **19.15** | **1488** | **22.08** | **1556** | **25.08** | **1621** | **28.12** | | |
| 18612 | 3600 | 1187 | 10.05 | 1207 | 10.77 | 1247 | 12.24 | **1286** | **13.72** | **1324** | **15.21** | **1398** | **18.21** | **1468** | **21.23** | **1536** | **24.33** | **1601** | **27.44** | | | | |
| 19646 | 3800 | 1250 | 11.71 | **1270** | **12.50** | **1308** | **14.05** | **1345** | **15.60** | **1382** | **17.20** | **1452** | **20.32** | **1520** | **23.52** | **1585** | **26.75** | | | | | | |

**MAXIMUM RPM:** Class I - 1257 Class II - 1623

## VSBC33

**Outlet Area - 6.26 ft$^2$ Wheel Dia. - 33.00 Inches Tip Speed - 8.64 x RPM Max. BHP = 11.05 (RPM/1000)$^3$**

| CFM | OV | 0.25" | | 0.5" | | 1" | | 1.5" | | 2" | | 3" | | 4" | | 5" | | 6" | | 7" | | 8" | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 5008 | 800 | 311 | 0.33 | 374 | 0.54 | 484 | 1.07 | | | | | | | | | | | | | | | | |
| 6260 | 1000 | 357 | 0.49 | 412 | 0.75 | 508 | 1.33 | 594 | 1.99 | | | | | | | | | | | | | | |
| 7512 | 1200 | 407 | 0.72 | 455 | 1.02 | 541 | 1.67 | 618 | 2.37 | 690 | 3.17 | | | | | | | | | | | | |
| 8764 | 1400 | 459 | 1.01 | 502 | 1.36 | 580 | 2.09 | 650 | 2.86 | 716 | 3.70 | 839 | 5.60 | | | | | | | | | | |
| 10016 | 1600 | 513 | 1.39 | 551 | 1.78 | 622 | 2.60 | 688 | 3.47 | 748 | 4.35 | 860 | 6.30 | 968 | 8.56 | | | | | | | | |
| 11268 | 1800 | 567 | 1.85 | 602 | 2.30 | 668 | 3.22 | 728 | 4.16 | 785 | 5.14 | 890 | 7.19 | 987 | 9.45 | 1083 | 12.02 | **1186** | **15.19** | | | | |
| 12520 | 2000 | 623 | 2.43 | 655 | 2.93 | 715 | 3.93 | 771 | 4.96 | 824 | 6.01 | 923 | 8.21 | 1015 | 10.57 | 1102 | 13.13 | **1188** | **15.95** | **1280** | **19.34** | | |
| 13772 | 2200 | 679 | 3.12 | 708 | 3.66 | 764 | 4.77 | 817 | 5.89 | 867 | 7.04 | 960 | 9.39 | 1047 | 11.86 | 1130 | 14.53 | **1208** | **17.31** | **1286** | **20.37** | **1368** | **23.89** |
| 15024 | 2400 | 735 | 3.93 | 762 | 4.52 | 814 | 5.72 | 864 | 6.95 | 911 | 8.18 | 1000 | 10.72 | 1082 | 13.32 | **1161** | **16.09** | **1236** | **18.99** | **1308** | **22.04** | **1379** | **25.29** |
| 16276 | 2600 | 792 | 4.89 | 817 | 5.53 | 866 | 6.84 | 912 | 8.13 | 957 | 9.47 | 1041 | 12.17 | 1120 | 14.96 | **1195** | **17.84** | **1267** | **20.85** | **1336** | **24.00** | **1403** | **27.31** |
| 17528 | 2800 | 849 | 6.00 | 873 | 6.70 | 918 | 8.08 | 962 | 9.49 | 1004 | 10.89 | 1084 | 13.77 | **1160** | **16.75** | **1232** | **19.81** | **1301** | **22.95** | **1367** | **26.17** | **1432** | **29.61** |
| 18780 | 3000 | 906 | 7.26 | 929 | 8.02 | 972 | 9.52 | 1013 | 11.01 | 1053 | 12.51 | 1129 | 15.56 | **1202** | **18.73** | **1271** | **21.95** | **1337** | **25.23** | **1401** | **28.61** | **1463** | **32.10** |
| 20032 | 3200 | 964 | 8.72 | 985 | 9.51 | 1025 | 11.08 | 1065 | 12.71 | 1103 | 14.31 | **1176** | **17.56** | **1245** | **20.86** | **1311** | **24.23** | **1375** | **27.70** | **1437** | **31.25** | | |
| 21284 | 3400 | 1022 | 10.36 | 1041 | 11.17 | 1080 | 12.88 | 1117 | 14.57 | **1153** | **16.26** | **1223** | **19.70** | **1290** | **23.22** | **1353** | **26.73** | **1415** | **30.38** | **1474** | **34.05** | | |
| 22536 | 3600 | 1079 | 12.16 | 1098 | 13.06 | 1135 | 14.86 | **1170** | **16.64** | **1205** | **18.46** | **1271** | **22.04** | **1335** | **25.71** | **1397** | **29.48** | **1456** | **33.25** | | | | |
| 23788 | 3800 | 1137 | 14.19 | **1155** | **15.14** | **1190** | **17.04** | **1224** | **18.94** | **1257** | **20.84** | **1321** | **24.65** | **1382** | **28.47** | **1441** | **32.37** | | | | | | |

**MAXIMUM RPM:** Class I - 1143 Class II - 1475

## VSBC36

**Outlet Area - 7.66 ft$^2$ Wheel Dia. - 36.50 Inches Tip Speed - 9.56 x RPM Max. BHP = 19.42 (RPM/1000)$^3$**

| CFM | OV | 0.25" | | 0.5" | | 1" | | 1.5" | | 2" | | 3" | | 4" | | 5" | | 6" | | 7" | | 8" | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 6128 | 800 | 271 | 0.38 | 326 | 0.65 | 430 | 1.27 | | | | | | | | | | | | | | | | |
| 7660 | 1000 | 312 | 0.57 | 359 | 0.89 | 445 | 1.58 | 527 | 2.37 | | | | | | | | | | | | | | |
| 9192 | 1200 | 357 | 0.84 | 397 | 1.20 | 472 | 1.99 | 543 | 2.86 | 610 | 3.77 | | | | | | | | | | | | |
| 10724 | 1400 | 404 | 1.19 | 439 | 1.60 | 505 | 2.48 | 567 | 3.41 | 628 | 4.44 | 744 | 6.63 | | | | | | | | | | |
| 12256 | 1600 | 453 | 1.65 | 483 | 2.09 | 542 | 3.07 | 598 | 4.09 | 653 | 5.20 | 758 | 7.57 | 859 | 10.14 | | | | | | | | |
| 13788 | 1800 | 502 | 2.21 | 529 | 2.70 | 582 | 3.77 | 633 | 4.89 | 683 | 6.08 | 779 | 8.62 | 871 | 11.33 | 961 | 14.26 | | | | | | |
| 15320 | 2000 | 552 | 2.91 | 577 | 3.46 | 625 | 4.61 | 671 | 5.82 | 717 | 7.09 | 805 | 9.79 | 890 | 12.68 | 972 | 15.70 | **1053** | **18.93** | | | | |
| 16852 | 2200 | 603 | 3.76 | 625 | 4.34 | 669 | 5.58 | 712 | 6.90 | 754 | 8.26 | 836 | 11.14 | 915 | 14.20 | 992 | 17.44 | **1066** | **20.75** | **1139** | **24.23** | **1215** | **28.13** |
| 18384 | 2400 | 654 | 4.76 | 674 | 5.38 | 715 | 6.73 | 754 | 8.11 | 793 | 9.58 | 869 | 12.62 | 943 | 15.85 | **1015** | **19.26** | **1085** | **22.79** | **1153** | **26.39** | **1221** | **30.22** |
| 19916 | 2600 | 705 | 5.94 | 724 | 6.62 | 761 | 8.02 | 798 | 9.52 | 835 | 11.10 | 906 | 14.34 | 975 | 17.72 | **1042** | **21.26** | **1108** | **24.97** | **1173** | **28.83** | **1236** | **32.73** |
| 21448 | 2800 | 756 | 7.29 | 774 | 8.03 | 809 | 9.54 | 843 | 11.10 | 877 | 12.75 | 944 | 16.20 | **1009** | **19.76** | **1073** | **23.51** | **1135** | **27.37** | **1196** | **31.37** | **1256** | **35.49** |
| 22980 | 3000 | 808 | 8.86 | 824 | 9.62 | 857 | 11.24 | 889 | 12.89 | 921 | 14.63 | 984 | 18.27 | **1045** | **22.00** | **1106** | **25.94** | **1165** | **29.99** | **1222** | **34.09** | **1279** | **38.39** |
| 24512 | 3200 | 859 | 10.62 | 875 | 11.46 | 906 | 13.17 | 936 | 14.91 | 966 | 16.73 | **1025** | **20.53** | **1083** | **24.47** | **1140** | **28.53** | **1197** | **32.81** | **1252** | **37.15** | | |
| 26044 | 3400 | 911 | 12.63 | 926 | 13.52 | 955 | 15.32 | 984 | 17.18 | **1012** | **19.07** | **1068** | **23.06** | **1123** | **27.20** | **1177** | **31.44** | **1231** | **35.86** | **1283** | **40.32** | | |
| 27576 | 3600 | 963 | 14.89 | 977 | 15.82 | **1005** | **17.74** | **1032** | **19.67** | **1059** | **21.67** | **1112** | **25.83** | **1164** | **30.15** | **1216** | **34.64** | **1266** | **39.11** | | | | |
| 29108 | 3800 | **1015** | **17.40** | **1028** | **18.37** | **1054** | **20.35** | **1080** | **22.39** | **1106** | **24.51** | **1157** | **28.87** | **1206** | **33.33** | **1255** | **37.97** | | | | | | |

**MAXIMUM RPM:** Class I - 995 Class II - 1283

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

Class I fans are shown non-shaded.
Class II fans are shown shaded.

# Performance Data

## VSFC12

**Outlet Area - 0.86 ft$^2$ Wheel Dia. - 12.25 Inches Tip Speed - 3.21 x RPM**

| CFM | OV | 0.25" | | 0.5" | | 1" | | 1.5" | | 2" | | 2.5" | | 3" | | 3.5" | | 4" | | 4.5" | | 5" | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 688 | 800 | 435 | 0.05 | | | | | | | | | | | | | | | | | | | | |
| 860 | 1000 | 461 | 0.08 | 604 | 0.13 | | | | | | | | | | | | | | | | | | |
| 1032 | 1200 | 492 | 0.11 | 623 | 0.17 | | | | | | | | | | | | | | | | | | |
| 1204 | 1400 | 530 | 0.15 | 649 | 0.21 | 853 | 0.36 | | | | | | | | | | | | | | | | |
| 1376 | 1600 | 572 | 0.21 | 680 | 0.28 | 871 | 0.43 | 1041 | 0.60 | | | | | | | | | | | | | | |
| 1548 | 1800 | 620 | 0.28 | 714 | 0.35 | 894 | 0.52 | 1050 | 0.70 | | | | | | | | | | | | | | |
| 1720 | 2000 | 673 | 0.37 | 753 | 0.44 | 921 | 0.62 | 1071 | 0.81 | 1207 | 1.02 | | | | | | | | | | | | |
| 1892 | 2200 | 728 | 0.47 | 795 | 0.55 | 952 | 0.74 | 1095 | 0.95 | 1224 | 1.16 | 1348 | 1.40 | | | | | | | | | | |
| 2064 | 2400 | 784 | 0.60 | 840 | 0.67 | 984 | 0.88 | 1121 | 1.10 | 1247 | 1.33 | 1363 | 1.57 | 1476 | 1.82 | | | | | | | | |
| 2236 | 2600 | 842 | 0.76 | 891 | 0.83 | 1020 | 1.04 | 1151 | 1.27 | 1271 | 1.51 | 1384 | 1.77 | **1490** | **2.03** | **1595** | **2.31** | **1700** | **2.61** | | | | |
| 2408 | 2800 | 900 | 0.94 | 944 | 1.01 | 1059 | 1.22 | 1182 | 1.46 | 1299 | 1.72 | 1408 | 1.99 | **1511** | **2.26** | **1609** | **2.55** | **1706** | **2.85** | **1803** | **3.16** | | |
| 2580 | 3000 | 958 | 1.14 | 998 | 1.21 | 1100 | 1.42 | 1216 | 1.69 | 1328 | 1.95 | **1434** | **2.23** | **1534** | **2.52** | **1629** | **2.82** | **1720** | **3.12** | **1811** | **3.44** | | |
| 2752 | 3200 | 1017 | 1.37 | 1054 | 1.45 | 1143 | 1.65 | 1252 | 1.93 | **1360** | **2.21** | **1462** | **2.50** | **1559** | **2.80** | **1653** | **3.12** | **1741** | **3.43** | **1826** | **3.75** | | |
| 2924 | 3400 | 1076 | 1.63 | 1111 | 1.72 | 1190 | 1.91 | **1292** | **2.20** | **1393** | **2.50** | **1492** | **2.80** | **1586** | **3.11** | **1677** | **3.44** | **1764** | **3.77** | **1847** | **4.10** | | |
| 3096 | 3600 | 1136 | 1.93 | **1168** | **2.02** | **1240** | **2.21** | **1332** | **2.50** | **1428** | **2.81** | **1524** | **3.13** | **1616** | **3.46** | **1703** | **3.79** | **1788** | **4.13** | **1870** | **4.49** | | |
| 3268 | 3800 | **1196** | **2.27** | **1226** | **2.35** | **1292** | **2.55** | **1374** | **2.83** | **1466** | **3.15** | **1557** | **3.49** | **1647** | **3.83** | **1732** | **4.17** | **1814** | **4.53** | | | | |

**MAXIMUM RPM:** Class I - 1559 Class II - 1871

## VSFC13

**Outlet Area - 1.05 ft$^2$ Wheel Dia. - 13.50 Inches Tip Speed - 3.53 x RPM**

| CFM | OV | 0.25" | | 0.5" | | 1" | | 1.5" | | 2" | | 2.5" | | 3" | | 3.5" | | 4" | | 4.5" | | 5" | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 840 | 800 | 395 | 0.07 | | | | | | | | | | | | | | | | | | | | |
| 1050 | 1000 | 419 | 0.10 | 548 | 0.16 | | | | | | | | | | | | | | | | | | |
| 1260 | 1200 | 448 | 0.14 | 566 | 0.20 | | | | | | | | | | | | | | | | | | |
| 1470 | 1400 | 482 | 0.19 | 590 | 0.26 | 774 | 0.43 | | | | | | | | | | | | | | | | |
| 1680 | 1600 | 520 | 0.25 | 618 | 0.34 | 791 | 0.53 | 945 | 0.74 | | | | | | | | | | | | | | |
| 1890 | 1800 | 565 | 0.34 | 650 | 0.43 | 812 | 0.63 | 954 | 0.85 | | | | | | | | | | | | | | |
| 2100 | 2000 | 613 | 0.45 | 685 | 0.54 | 837 | 0.76 | 973 | 1.00 | 1096 | 1.25 | | | | | | | | | | | | |
| 2310 | 2200 | 663 | 0.58 | 723 | 0.67 | 865 | 0.91 | 995 | 1.16 | 1112 | 1.42 | 1223 | 1.70 | | | | | | | | | | |
| 2520 | 2400 | 715 | 0.74 | 765 | 0.83 | 895 | 1.08 | 1019 | 1.35 | 1133 | 1.63 | 1238 | 1.92 | **1340** | **2.23** | **1442** | **2.56** | | | | | | |
| 2730 | 2600 | 767 | 0.93 | 811 | 1.02 | 928 | 1.28 | 1046 | 1.56 | 1155 | 1.85 | **1258** | **2.17** | **1353** | **2.48** | **1447** | **2.82** | **1542** | **3.18** | | | | |
| 2940 | 2800 | 820 | 1.15 | 860 | 1.24 | 964 | 1.50 | 1075 | 1.80 | **1180** | **2.11** | **1279** | **2.44** | **1373** | **2.78** | **1461** | **3.12** | **1548** | **3.48** | **1637** | **3.87** | | |
| 3150 | 3000 | 874 | 1.41 | 910 | 1.49 | 1001 | 1.75 | 1106 | 2.07 | **1208** | **2.40** | **1303** | **2.74** | **1394** | **3.09** | **1480** | **3.45** | **1562** | **3.82** | **1644** | **4.20** | | |
| 3360 | 3200 | 927 | 1.69 | 961 | 1.79 | **1041** | **2.03** | **1139** | **2.37** | **1236** | **2.71** | **1329** | **3.07** | **1417** | **3.44** | **1501** | **3.82** | **1582** | **4.21** | **1659** | **4.60** | | |
| 3570 | 3400 | **982** | **2.02** | **1013** | **2.12** | **1084** | **2.36** | **1175** | **2.70** | **1267** | **3.07** | **1357** | **3.44** | **1442** | **3.82** | **1524** | **4.22** | **1603** | **4.62** | **1678** | **5.03** | | |
| 3780 | 3600 | **1036** | **2.38** | **1065** | **2.49** | **1129** | **2.72** | **1212** | **3.07** | **1299** | **3.45** | **1386** | **3.84** | **1469** | **4.24** | **1548** | **4.65** | **1625** | **5.07** | | | | |
| 3990 | 3800 | **1090** | **2.79** | **1118** | **2.90** | **1177** | **3.14** | **1251** | **3.48** | **1334** | **3.88** | **1416** | **4.28** | **1497** | **4.69** | **1574** | **5.11** | **1649** | **5.55** | | | | |

**MAXIMUM RPM:** Class I - 1415 Class II - 1698

## VSFC15

**Outlet Area - 1.29 ft$^2$ Wheel Dia. - 15.00 Inches Tip Speed - 3.93 x RPM**

| CFM | OV | 0.25" | | 0.5" | | 1" | | 1.5" | | 2" | | 2.5" | | 3" | | 3.5" | | 4" | | 4.5" | | 5" | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 1032 | 800 | 355 | 0.08 | | | | | | | | | | | | | | | | | | | | |
| 1290 | 1000 | 376 | 0.12 | 493 | 0.19 | | | | | | | | | | | | | | | | | | |
| 1548 | 1200 | 402 | 0.17 | 509 | 0.25 | | | | | | | | | | | | | | | | | | |
| 1806 | 1400 | 433 | 0.23 | 530 | 0.32 | 696 | 0.53 | | | | | | | | | | | | | | | | |
| 2064 | 1600 | 467 | 0.31 | 555 | 0.41 | 711 | 0.64 | 850 | 0.90 | | | | | | | | | | | | | | |
| 2322 | 1800 | 506 | 0.41 | 583 | 0.53 | 730 | 0.77 | 858 | 1.05 | | | | | | | | | | | | | | |
| 2580 | 2000 | 550 | 0.55 | 615 | 0.66 | 752 | 0.93 | 874 | 1.22 | 986 | 1.53 | | | | | | | | | | | | |
| 2838 | 2200 | 595 | 0.71 | 649 | 0.82 | 777 | 1.11 | 894 | 1.42 | 1000 | 1.75 | 1101 | 2.09 | | | | | | | | | | |
| 3096 | 2400 | 641 | 0.91 | 687 | 1.01 | 804 | 1.32 | 916 | 1.65 | 1018 | 1.99 | 1113 | 2.35 | 1205 | 2.73 | | | | | | | | |
| 3354 | 2600 | 688 | 1.14 | 728 | 1.24 | 833 | 1.56 | 940 | 1.91 | 1038 | 2.27 | 1131 | 2.66 | 1217 | 3.04 | **1302** | **3.46** | **1388** | **3.91** | | | | |
| 3612 | 2800 | 735 | 1.40 | 771 | 1.51 | 865 | 1.83 | 966 | 2.20 | 1061 | 2.59 | 1150 | 2.99 | 1234 | 3.40 | **1314** | **3.82** | **1393** | **4.27** | **1473** | **4.75** | | |
| 3870 | 3000 | 783 | 1.71 | 816 | 1.82 | 899 | 2.14 | 993 | 2.53 | 1085 | 2.93 | 1171 | 3.35 | 1253 | 3.79 | **1331** | **4.23** | **1405** | **4.68** | **1479** | **5.16** | | |
| 4128 | 3200 | 831 | 2.06 | 861 | 2.17 | 934 | 2.48 | 1023 | 2.90 | 1111 | 3.32 | 1194 | 3.75 | **1274** | **4.22** | **1350** | **4.68** | **1422** | **5.15** | **1492** | **5.64** | | |
| 4386 | 3400 | 879 | 2.45 | 907 | 2.57 | 972 | 2.87 | 1055 | 3.30 | 1138 | 3.75 | 1219 | 4.20 | **1296** | **4.68** | **1370** | **5.17** | **1441** | **5.66** | **1509** | **6.16** | | |
| 4644 | 3600 | 928 | 2.90 | 954 | 3.02 | 1013 | 3.32 | 1088 | 3.75 | 1167 | 4.22 | 1245 | 4.70 | **1320** | **5.19** | **1391** | **5.68** | **1461** | **6.21** | **1528** | **6.74** | | |
| 4902 | 3800 | 977 | 3.40 | 1001 | 3.52 | 1055 | 3.82 | 1122 | 4.24 | 1198 | 4.74 | **1272** | **5.23** | **1345** | **5.74** | **1415** | **6.27** | **1482** | **6.80** | | | | |

**MAXIMUM RPM:** Class I - 1273 Class II - 1528

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

Class I fans are shown non-shaded.
Class II fans are shown shaded.

# Performance Data

## VSFC16

**Outlet Area - 1.57 ft$^2$ Wheel Dia. - 16.50 Inches Tip Speed - 4.32 x RPM**

| CFM | OV | 0.25" | | 0.5" | | 1" | | 1.5" | | 2" | | 2.5" | | 3" | | 3.5" | | 4" | | 4.5" | | 5" | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 1256 | 800 | 324 | 0.10 | | | | | | | | | | | | | | | | | | | | |
| 1570 | 1000 | 343 | 0.14 | 448 | 0.23 | | | | | | | | | | | | | | | | | | |
| 1884 | 1200 | 366 | 0.20 | 464 | 0.31 | | | | | | | | | | | | | | | | | | |
| 2198 | 1400 | 395 | 0.28 | 483 | 0.39 | 634 | 0.65 | | | | | | | | | | | | | | | | |
| 2512 | 1600 | 426 | 0.38 | 506 | 0.51 | 647 | 0.79 | 773 | 1.10 | | | | | | | | | | | | | | |
| 2826 | 1800 | 462 | 0.51 | 532 | 0.65 | 665 | 0.95 | 780 | 1.27 | | | | | | | | | | | | | | |
| 3140 | 2000 | 502 | 0.67 | 561 | 0.81 | 685 | 1.14 | 796 | 1.49 | 897 | 1.86 | | | | | | | | | | | | |
| 3454 | 2200 | 543 | 0.87 | 592 | 1.01 | 708 | 1.36 | 814 | 1.74 | 910 | 2.13 | 1001 | 2.55 | | | | | | | | | | |
| 3768 | 2400 | 585 | 1.11 | 627 | 1.24 | 733 | 1.62 | 834 | 2.01 | 927 | 2.44 | 1013 | 2.87 | 1096 | 3.33 | **1180** | **3.84** | | | | | | |
| 4082 | 2600 | 628 | 1.39 | 664 | 1.52 | 760 | 1.91 | 856 | 2.33 | 946 | 2.78 | 1029 | 3.24 | 1107 | 3.71 | **1184** | **4.21** | **1262** | **4.76** | | | | |
| 4396 | 2800 | 672 | 1.73 | 704 | 1.85 | 789 | 2.25 | 880 | 2.69 | 966 | 3.16 | 1047 | 3.65 | 1123 | 4.15 | **1196** | **4.67** | **1267** | **5.20** | **1339** | **5.78** | | |
| 4710 | 3000 | 715 | 2.10 | 745 | 2.24 | 820 | 2.62 | 905 | 3.09 | 988 | 3.58 | 1066 | 4.09 | 1141 | 4.63 | **1211** | **5.16** | **1279** | **5.72** | **1345** | **6.29** | | |
| 5024 | 3200 | 760 | 2.54 | 787 | 2.68 | 852 | 3.04 | 933 | 3.55 | 1012 | 4.06 | 1088 | 4.60 | **1160** | **5.15** | **1229** | **5.72** | **1294** | **6.28** | **1357** | **6.87** | | |
| 5338 | 3400 | 804 | 3.02 | 829 | 3.17 | 887 | 3.52 | 962 | 4.05 | 1037 | 4.59 | **1110** | **5.14** | **1180** | **5.71** | **1247** | **6.31** | **1312** | **6.92** | **1373** | **7.52** | | |
| 5652 | 3600 | 848 | 3.57 | 872 | 3.72 | 925 | 4.08 | 992 | 4.59 | **1063** | **5.16** | **1134** | **5.74** | **1202** | **6.34** | **1267** | **6.95** | **1330** | **7.59** | | | | |
| 5966 | 3800 | 893 | 4.18 | 915 | 4.34 | 964 | 4.70 | **1024** | **5.20** | **1092** | **5.80** | **1159** | **6.41** | **1225** | **7.02** | **1288** | **7.65** | **1349** | **8.30** | | | | |

**MAXIMUM RPM:** Class I - 1157 Class II - 1389

## VSFC18

**Outlet Area - 1.92 ft$^2$ Wheel Dia. - 18.25 Inches Tip Speed - 4.78 x RPM**

| CFM | OV | 0.25" | | 0.5" | | 1" | | 1.5" | | 2" | | 2.5" | | 3" | | 3.5" | | 4" | | 4.5" | | 5" | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 1536 | 800 | 293 | 0.11 | | | | | | | | | | | | | | | | | | | | |
| 1920 | 1000 | 313 | 0.16 | 406 | 0.26 | | | | | | | | | | | | | | | | | | |
| 2304 | 1200 | 339 | 0.23 | 421 | 0.34 | 566 | 0.60 | | | | | | | | | | | | | | | | |
| 2688 | 1400 | 368 | 0.33 | 441 | 0.44 | 574 | 0.73 | | | | | | | | | | | | | | | | |
| 3072 | 1600 | 399 | 0.46 | 466 | 0.58 | 587 | 0.88 | 697 | 1.22 | | | | | | | | | | | | | | |
| 3456 | 1800 | 432 | 0.62 | 494 | 0.76 | 605 | 1.06 | 708 | 1.43 | 804 | 1.82 | | | | | | | | | | | | |
| 3840 | 2000 | 466 | 0.81 | 524 | 0.97 | 626 | 1.28 | 722 | 1.66 | 812 | 2.08 | 898 | 2.52 | | | | | | | | | | |
| 4224 | 2200 | 501 | 1.04 | 555 | 1.22 | 651 | 1.56 | 740 | 1.93 | 825 | 2.37 | 906 | 2.84 | 984 | 3.33 | | | | | | | | |
| 4608 | 2400 | 536 | 1.31 | 587 | 1.51 | 677 | 1.87 | 761 | 2.26 | 842 | 2.71 | 918 | 3.20 | 992 | 3.72 | **1064** | **4.25** | **1133** | **4.80** | | | | |
| 4992 | 2600 | 572 | 1.63 | 620 | 1.84 | 706 | 2.24 | 785 | 2.65 | 861 | 3.10 | 934 | 3.61 | 1004 | 4.15 | **1072** | **4.71** | **1138** | **5.27** | **1203** | **5.87** | | |
| 5376 | 2800 | 609 | 2.01 | 654 | 2.23 | 736 | 2.67 | 811 | 3.10 | 883 | 3.56 | 952 | 4.06 | 1019 | 4.62 | **1084** | **5.21** | **1147** | **5.81** | **1209** | **6.42** | | |
| 5760 | 3000 | 646 | 2.43 | 689 | 2.68 | 767 | 3.15 | 838 | 3.60 | 906 | 4.07 | 972 | 4.58 | 1036 | 5.14 | **1099** | **5.76** | **1159** | **6.38** | **1219** | **7.04** | | |
| 6144 | 3200 | 683 | 2.91 | 724 | 3.18 | 799 | 3.69 | 867 | 4.17 | 932 | 4.67 | 995 | 5.19 | **1056** | **5.75** | **1116** | **6.36** | **1174** | **7.00** | **1231** | **7.68** | | |
| 6528 | 3400 | 721 | 3.46 | 760 | 3.75 | 831 | 4.28 | 897 | 4.80 | 959 | 5.32 | 1019 | 5.86 | **1078** | **6.44** | **1135** | **7.04** | **1191** | **7.69** | **1246** | **8.39** | | |
| 6912 | 3600 | 759 | 4.08 | 796 | 4.38 | 864 | 4.94 | 928 | 5.51 | 987 | 6.04 | 1045 | 6.61 | **1101** | **7.19** | **1156** | **7.81** | **1210** | **8.46** | | | | |
| 7296 | 3800 | 797 | 4.76 | 832 | 5.07 | 898 | 5.68 | 959 | 6.27 | 1017 | 6.85 | **1072** | **7.43** | **1126** | **8.03** | **1179** | **8.66** | **1230** | **9.30** | | | | |

**MAXIMUM RPM:** Class I - 1046 Class II - 1256

## VSFC20

**Outlet Area - 2.30 ft$^2$ Wheel Dia. - 20.00 Inches Tip Speed - 5.24 x RPM**

| CFM | OV | 0.25" | | 0.5" | | 1" | | 1.5" | | 2" | | 2.5" | | 3" | | 3.5" | | 4" | | 4.5" | | 5" | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 1840 | 800 | 268 | 0.13 | | | | | | | | | | | | | | | | | | | | |
| 2300 | 1000 | 286 | 0.19 | 371 | 0.31 | | | | | | | | | | | | | | | | | | |
| 2760 | 1200 | 309 | 0.28 | 384 | 0.41 | 517 | 0.72 | | | | | | | | | | | | | | | | |
| 3220 | 1400 | 335 | 0.40 | 402 | 0.53 | 523 | 0.87 | | | | | | | | | | | | | | | | |
| 3680 | 1600 | 364 | 0.55 | 425 | 0.70 | 535 | 1.05 | 636 | 1.46 | | | | | | | | | | | | | | |
| 4140 | 1800 | 394 | 0.74 | 450 | 0.90 | 551 | 1.26 | 645 | 1.70 | 733 | 2.18 | | | | | | | | | | | | |
| 4600 | 2000 | 424 | 0.96 | 477 | 1.15 | 571 | 1.53 | 659 | 1.99 | 741 | 2.49 | 819 | 3.02 | | | | | | | | | | |
| 5060 | 2200 | 456 | 1.24 | 505 | 1.45 | 593 | 1.86 | 675 | 2.31 | 753 | 2.85 | 827 | 3.41 | 898 | 3.99 | | | | | | | | |
| 5520 | 2400 | 488 | 1.57 | 535 | 1.80 | 617 | 2.23 | 694 | 2.71 | 767 | 3.23 | 838 | 3.84 | 905 | 4.45 | **970** | **5.08** | **1034** | **5.75** | | | | |
| 5980 | 2600 | 521 | 1.95 | 565 | 2.20 | 643 | 2.67 | 716 | 3.17 | 785 | 3.71 | 852 | 4.32 | 916 | 4.97 | **978** | **5.64** | **1038** | **6.31** | **1097** | **7.02** | | |
| 6440 | 2800 | 554 | 2.39 | 596 | 2.67 | 671 | 3.19 | 739 | 3.70 | 805 | 4.26 | 868 | 4.86 | 929 | 5.52 | **989** | **6.24** | **1047** | **6.96** | **1103** | **7.69** | | |
| 6900 | 3000 | 588 | 2.90 | 627 | 3.19 | 699 | 3.76 | 764 | 4.30 | 826 | 4.87 | 886 | 5.48 | 945 | 6.15 | **1002** | **6.88** | **1057** | **7.63** | **1112** | **8.42** | | |
| 7360 | 3200 | 622 | 3.48 | 659 | 3.79 | 728 | 4.40 | 790 | 4.97 | 849 | 5.56 | 907 | 6.20 | **963** | **6.87** | **1017** | **7.59** | **1071** | **8.39** | **1123** | **9.20** | | |
| 7820 | 3400 | 656 | 4.12 | 692 | 4.47 | 757 | 5.11 | 817 | 5.72 | 874 | 6.35 | 929 | 7.00 | **982** | **7.67** | **1035** | **8.42** | **1086** | **9.19** | **1136** | **10.02** | | |
| 8280 | 3600 | 691 | 4.86 | 724 | 5.21 | 787 | 5.90 | 845 | 6.56 | 900 | 7.23 | **952** | **7.88** | **1004** | **8.60** | **1054** | **9.33** | **1103** | **10.10** | | | | |
| 8740 | 3800 | 725 | 5.66 | 758 | 6.06 | 818 | 6.78 | 874 | 7.49 | **926** | **8.16** | **977** | **8.87** | **1026** | **9.59** | **1074** | **10.33** | **1122** | **11.14** | | | | |

**MAXIMUM RPM:** Class I - 955 Class II - 1146

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

Class I fans are shown non-shaded.
Class II fans are shown shaded.

# Performance Data

## VSFC22

**Outlet Area - 2.85 ft$^2$ Wheel Dia. - 22.25 Inches Tip Speed - 5.83 x RPM**

| CFM | OV | 0.25" | | 0.5" | | 1" | | 1.5" | | 2" | | 2.5" | | 3" | | 3.5" | | 4" | | 4.5" | | 5" | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 2280 | 800 | 241 | 0.16 | | | | | | | | | | | | | | | | | | | | |
| 2850 | 1000 | 257 | 0.24 | 333 | 0.39 | | | | | | | | | | | | | | | | | | |
| 3420 | 1200 | 278 | 0.35 | 345 | 0.50 | 465 | 0.89 | | | | | | | | | | | | | | | | |
| 3990 | 1400 | 302 | 0.50 | 362 | 0.66 | 470 | 1.07 | | | | | | | | | | | | | | | | |
| 4560 | 1600 | 327 | 0.68 | 382 | 0.86 | 481 | 1.30 | 572 | 1.81 | | | | | | | | | | | | | | |
| 5130 | 1800 | 354 | 0.91 | 405 | 1.12 | 496 | 1.57 | 580 | 2.11 | 659 | 2.70 | | | | | | | | | | | | |
| 5700 | 2000 | 382 | 1.20 | 429 | 1.43 | 513 | 1.90 | 592 | 2.46 | 666 | 3.09 | 736 | 3.73 | | | | | | | | | | |
| 6270 | 2200 | 410 | 1.54 | 455 | 1.80 | 533 | 2.30 | 607 | 2.87 | 677 | 3.53 | 743 | 4.22 | 807 | 4.94 | | | | | | | | |
| 6840 | 2400 | 439 | 1.94 | 481 | 2.23 | 555 | 2.77 | 624 | 3.35 | 690 | 4.02 | 753 | 4.76 | 814 | 5.53 | **872** | **6.30** | **929** | **7.12** | | | | |
| 7410 | 2600 | 469 | 2.43 | 508 | 2.73 | 579 | 3.33 | 644 | 3.94 | 706 | 4.60 | 766 | 5.35 | 823 | 6.15 | **879** | **6.98** | **934** | **7.84** | **986** | **8.69** | | |
| 7980 | 2800 | 499 | 2.98 | 536 | 3.31 | 603 | 3.95 | 665 | 4.60 | 724 | 5.28 | 780 | 6.01 | 835 | 6.84 | **889** | **7.73** | **941** | **8.62** | **991** | **9.51** | | |
| 8550 | 3000 | 529 | 3.60 | 564 | 3.96 | 629 | 4.67 | 687 | 5.33 | 743 | 6.05 | 797 | 6.80 | 850 | 7.64 | **901** | **8.53** | **951** | **9.48** | **999** | **10.42** | | |
| 9120 | 3200 | 560 | 4.33 | 593 | 4.71 | 655 | 5.47 | 711 | 6.19 | 764 | 6.92 | 815 | 7.68 | **866** | **8.53** | **915** | **9.43** | **963** | **10.40** | **1009** | **11.38** | | |
| 9690 | 3400 | 591 | 5.14 | 622 | 5.53 | 681 | 6.34 | 735 | 7.11 | 786 | 7.88 | 835 | 8.68 | **883** | **9.52** | **930** | **10.41** | **976** | **11.38** | **1021** | **12.41** | | |
| 10260 | 3600 | 622 | 6.05 | 652 | 6.48 | 708 | 7.32 | 760 | 8.14 | 809 | 8.95 | 856 | 9.78 | **903** | **10.67** | **948** | **11.58** | **992** | **12.54** | | | | |
| 10830 | 3800 | 653 | 7.05 | 682 | 7.52 | 736 | 8.42 | 786 | 9.29 | **833** | **10.13** | **878** | **10.98** | **923** | **11.91** | **966** | **12.82** | **1009** | **13.81** | | | | |

**MAXIMUM RPM:** Class I - 858 Class II - 1030

## VSFC24

**Outlet Area - 3.45 ft$^2$ Wheel Dia. - 24.50 Inches Tip Speed - 6.41 x RPM**

| CFM | OV | 0.25" | | 0.5" | | 1" | | 1.5" | | 2" | | 2.5" | | 3" | | 3.5" | | 4" | | 4.5" | | 5" | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 2760 | 800 | 218 | 0.20 | | | | | | | | | | | | | | | | | | | | |
| 3450 | 1000 | 233 | 0.29 | 302 | 0.47 | | | | | | | | | | | | | | | | | | |
| 4140 | 1200 | 252 | 0.42 | 313 | 0.61 | 422 | 1.08 | | | | | | | | | | | | | | | | |
| 4830 | 1400 | 274 | 0.60 | 328 | 0.79 | 427 | 1.30 | | | | | | | | | | | | | | | | |
| 5520 | 1600 | 297 | 0.82 | 347 | 1.05 | 437 | 1.57 | 519 | 2.19 | | | | | | | | | | | | | | |
| 6210 | 1800 | 321 | 1.10 | 367 | 1.35 | 450 | 1.89 | 527 | 2.56 | 598 | 3.26 | | | | | | | | | | | | |
| 6900 | 2000 | 346 | 1.45 | 389 | 1.72 | 466 | 2.30 | 538 | 2.98 | 605 | 3.74 | 669 | 4.53 | | | | | | | | | | |
| 7590 | 2200 | 372 | 1.86 | 413 | 2.18 | 484 | 2.78 | 551 | 3.47 | 614 | 4.26 | 675 | 5.11 | 733 | 5.99 | | | | | | | | |
| 8280 | 2400 | 399 | 2.36 | 436 | 2.69 | 504 | 3.36 | 567 | 4.07 | 626 | 4.85 | 684 | 5.76 | 739 | 6.69 | **792** | **7.63** | **844** | **8.62** | | | | |
| 8970 | 2600 | 425 | 2.92 | 461 | 3.30 | 525 | 4.01 | 584 | 4.75 | 641 | 5.57 | 695 | 6.46 | 748 | 7.46 | **798** | **8.44** | **848** | **9.49** | **896** | **10.54** | | |
| 9660 | 2800 | 452 | 3.58 | 486 | 3.99 | 547 | 4.76 | 603 | 5.54 | 657 | 6.38 | 708 | 7.27 | 758 | 8.27 | **807** | **9.35** | **854** | **10.42** | **900** | **11.51** | | |
| 10350 | 3000 | 480 | 4.35 | 512 | 4.79 | 570 | 5.62 | 623 | 6.43 | 674 | 7.30 | 724 | 8.24 | 771 | 9.21 | **818** | **10.32** | **863** | **11.46** | **907** | **12.60** | | |
| 11040 | 3200 | 508 | 5.23 | 538 | 5.69 | 594 | 6.59 | 645 | 7.47 | 693 | 8.35 | 740 | 9.29 | **786** | **10.31** | **830** | **11.38** | **874** | **12.57** | **916** | **13.77** | | |
| 11730 | 3400 | 536 | 6.20 | 564 | 6.68 | 618 | 7.66 | 667 | 8.59 | 713 | 9.51 | **758** | **10.49** | **802** | **11.53** | **845** | **12.63** | **886** | **13.77** | **927** | **15.02** | | |
| 12420 | 3600 | 564 | 7.29 | 591 | 7.81 | 642 | 8.83 | 690 | 9.85 | **734** | **10.81** | **777** | **11.82** | **819** | **12.87** | **860** | **13.98** | **900** | **15.13** | | | | |
| 13110 | 3800 | 592 | 8.50 | 618 | 9.06 | **667** | **10.14** | **713** | **11.21** | **756** | **12.25** | **797** | **13.28** | **838** | **14.41** | **877** | **15.51** | **916** | **16.71** | | | | |

**MAXIMUM RPM:** Class I - 780 Class II - 935

## VSFC27

**Outlet Area - 4.19 ft$^2$ Wheel Dia. - 27.00 Inches Tip Speed - 7.07 x RPM**

| CFM | OV | 0.25" | | 0.5" | | 1" | | 1.5" | | 2" | | 2.5" | | 3" | | 3.5" | | 4" | | 4.5" | | 5" | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 3352 | 800 | 191 | 0.23 | | | | | | | | | | | | | | | | | | | | |
| 4190 | 1000 | 203 | 0.33 | 265 | 0.54 | | | | | | | | | | | | | | | | | | |
| 5028 | 1200 | 219 | 0.47 | 273 | 0.70 | | | | | | | | | | | | | | | | | | |
| 5866 | 1400 | 237 | 0.66 | 286 | 0.91 | 375 | 1.51 | | | | | | | | | | | | | | | | |
| 6704 | 1600 | 257 | 0.90 | 301 | 1.18 | 382 | 1.81 | 456 | 2.52 | | | | | | | | | | | | | | |
| 7542 | 1800 | 278 | 1.20 | 318 | 1.50 | 392 | 2.17 | 462 | 2.96 | 525 | 3.75 | | | | | | | | | | | | |
| 8380 | 2000 | 301 | 1.59 | 337 | 1.91 | 406 | 2.63 | 470 | 3.44 | 531 | 4.32 | 587 | 5.21 | | | | | | | | | | |
| 9218 | 2200 | 324 | 2.04 | 357 | 2.38 | 421 | 3.16 | 480 | 3.98 | 538 | 4.93 | 593 | 5.92 | 643 | 6.87 | | | | | | | | |
| 10056 | 2400 | 347 | 2.57 | 378 | 2.95 | 438 | 3.78 | 493 | 4.64 | 547 | 5.61 | 599 | 6.65 | 649 | 7.73 | 695 | 8.77 | | | | | | |
| 10894 | 2600 | 371 | 3.21 | 400 | 3.61 | 455 | 4.46 | 508 | 5.40 | 558 | 6.38 | 607 | 7.45 | 655 | 8.60 | 701 | 9.77 | **744** | **10.91** | | | | |
| 11732 | 2800 | 395 | 3.94 | 422 | 4.36 | 474 | 5.27 | 525 | 6.30 | 572 | 7.31 | 617 | 8.35 | 663 | 9.56 | **707** | **10.78** | **750** | **12.05** | **790** | **13.27** | **830** | **14.56** |
| 12570 | 3000 | 419 | 4.77 | 445 | 5.24 | 493 | 6.16 | 541 | 7.22 | 587 | 8.33 | 630 | 9.43 | **673** | **10.63** | **715** | **11.90** | **756** | **13.21** | **796** | **14.55** | **834** | **15.87** |
| 13408 | 3200 | 444 | 5.74 | 468 | 6.21 | 514 | 7.21 | 559 | 8.30 | 603 | 9.47 | **644** | **10.61** | **684** | **11.80** | **724** | **13.09** | **764** | **14.49** | **803** | **15.92** | **841** | **17.37** |
| 14246 | 3400 | 469 | 6.83 | 492 | 7.34 | 535 | 8.36 | 577 | 9.46 | **620** | **10.74** | **660** | **11.97** | **698** | **13.19** | **736** | **14.50** | **773** | **15.85** | **810** | **17.29** | **847** | **18.82** |
| 15084 | 3600 | 494 | 8.04 | 515 | 8.54 | 557 | 9.67 | **596** | **10.77** | **637** | **12.09** | **676** | **13.41** | **713** | **14.71** | **749** | **16.03** | **784** | **17.38** | **820** | **18.89** | | |
| 15922 | 3800 | 519 | 9.39 | 539 | 9.92 | **579** | **11.10** | **617** | **12.29** | **655** | **13.58** | **693** | **14.99** | **729** | **16.37** | **763** | **17.70** | **797** | **19.12** | **831** | **20.61** | | |

**MAXIMUM RPM:** Class I - 707 Class II - 849

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

Class I fans are shown non-shaded.
Class II fans are shown shaded.

# Performance Data

## VSFC30

**Outlet Area - 5.17 ft$^2$ Wheel Dia. - 30.00 Inches Tip Speed - 7.85 x RPM**

| CFM | OV | 0.25" | | 0.5" | | 1" | | 1.5" | | 2" | | 2.5" | | 3" | | 3.5" | | 4" | | 4.5" | | 5" | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 4136 | 800 | 172 | 0.28 | | | | | | | | | | | | | | | | | | | | |
| 5170 | 1000 | 183 | 0.41 | 239 | 0.67 | | | | | | | | | | | | | | | | | | |
| 6204 | 1200 | 197 | 0.58 | 246 | 0.86 | | | | | | | | | | | | | | | | | | |
| 7238 | 1400 | 213 | 0.81 | 257 | 1.12 | 337 | 1.85 | | | | | | | | | | | | | | | | |
| 8272 | 1600 | 231 | 1.11 | 271 | 1.46 | 344 | 2.24 | 410 | 3.11 | | | | | | | | | | | | | | |
| 9306 | 1800 | 250 | 1.48 | 286 | 1.85 | 353 | 2.69 | 416 | 3.65 | 473 | 4.64 | | | | | | | | | | | | |
| 10340 | 2000 | 271 | 1.96 | 303 | 2.34 | 365 | 3.24 | 423 | 4.24 | 478 | 5.33 | 528 | 6.41 | | | | | | | | | | |
| 11374 | 2200 | 291 | 2.51 | 321 | 2.93 | 379 | 3.90 | 432 | 4.91 | 484 | 6.07 | 533 | 7.27 | 579 | 8.49 | | | | | | | | |
| 12408 | 2400 | 312 | 3.17 | 340 | 3.63 | 394 | 4.66 | 444 | 5.74 | 492 | 6.91 | 539 | 8.20 | 584 | 9.53 | **626** | **10.85** | | | | | | |
| 13442 | 2600 | 334 | 3.97 | 359 | 4.42 | 410 | 5.53 | 457 | 6.66 | 502 | 7.87 | 546 | 9.18 | **589** | **10.58** | **631** | **12.06** | **670** | **13.48** | | | | |
| 14476 | 2800 | 355 | 4.84 | 380 | 5.39 | 426 | 6.48 | 472 | 7.75 | 514 | 8.98 | **556** | **10.35** | **596** | **11.75** | **636** | **13.29** | **675** | **14.87** | **711** | **16.37** | **747** | **17.96** |
| 15510 | 3000 | 377 | 5.88 | 400 | 6.44 | 444 | 7.62 | 487 | 8.92 | **528** | **10.27** | **567** | **11.64** | **605** | **13.07** | **643** | **14.65** | **681** | **16.35** | **717** | **18.00** | **751** | **19.62** |
| 16544 | 3200 | 399 | 7.05 | 421 | 7.66 | 462 | 8.87 | **503** | **10.24** | **543** | **11.71** | **580** | **13.12** | **616** | **14.59** | **652** | **16.18** | **687** | **17.83** | **722** | **19.59** | **757** | **21.44** |
| 17578 | 3400 | 422 | 8.42 | 442 | 9.01 | **481** | **10.29** | **519** | **11.66** | **557** | **13.18** | **594** | **14.77** | **628** | **16.26** | **662** | **17.86** | **696** | **19.58** | **729** | **21.34** | **762** | **23.20** |
| 18612 | 3600 | 444 | 9.89 | **464** | **10.58** | **501** | **11.91** | **537** | **13.33** | **573** | **14.89** | **608** | **16.51** | **642** | **18.17** | **674** | **19.78** | **706** | **21.49** | **738** | **23.31** | | |
| 19646 | 3800 | **467** | **11.58** | **485** | **12.24** | **521** | **13.69** | **555** | **15.14** | **589** | **16.72** | **623** | **18.44** | **656** | **20.19** | **687** | **21.87** | **717** | **23.56** | | | | |

**MAXIMUM RPM:** Class I - 637 Class II - 764

## VSFC33

**Outlet Area - 6.26 ft$^2$ Wheel Dia. - 33.00 Inches Tip Speed - 8.64 x RPM**

| CFM | OV | 0.25" | | 0.5" | | 1" | | 1.5" | | 2" | | 2.5" | | 3" | | 3.5" | | 4" | | 4.5" | | 5" | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 5008 | 800 | 156 | 0.34 | | | | | | | | | | | | | | | | | | | | |
| 6260 | 1000 | 166 | 0.49 | 217 | 0.80 | | | | | | | | | | | | | | | | | | |
| 7512 | 1200 | 179 | 0.70 | 224 | 1.05 | | | | | | | | | | | | | | | | | | |
| 8764 | 1400 | 194 | 0.99 | 234 | 1.36 | 307 | 2.25 | | | | | | | | | | | | | | | | |
| 10016 | 1600 | 210 | 1.34 | 247 | 1.78 | 312 | 2.69 | 373 | 3.77 | | | | | | | | | | | | | | |
| 11268 | 1800 | 228 | 1.81 | 261 | 2.27 | 321 | 3.25 | 378 | 4.42 | 430 | 5.62 | | | | | | | | | | | | |
| 12520 | 2000 | 246 | 2.36 | 276 | 2.86 | 332 | 3.93 | 384 | 5.11 | 434 | 6.43 | 480 | 7.76 | | | | | | | | | | |
| 13772 | 2200 | 265 | 3.05 | 292 | 3.56 | 345 | 4.74 | 393 | 5.96 | 440 | 7.35 | 485 | 8.83 | 526 | 10.26 | | | | | | | | |
| 15024 | 2400 | 284 | 3.85 | 309 | 4.39 | 358 | 5.63 | 404 | 6.97 | 447 | 8.35 | 490 | 9.93 | 531 | 11.54 | 569 | 13.13 | | | | | | |
| 16276 | 2600 | 304 | 4.82 | 327 | 5.38 | 372 | 6.65 | 416 | 8.10 | 457 | 9.56 | 497 | 11.15 | 536 | 12.85 | 574 | 14.63 | **609** | **16.32** | | | | |
| 17528 | 2800 | 323 | 5.88 | 345 | 6.50 | 387 | 7.83 | 429 | 9.37 | 468 | 10.92 | 505 | 12.49 | 542 | 14.24 | 579 | 16.16 | **614** | **18.03** | **647** | **19.88** | **679** | **21.74** |
| 18780 | 3000 | 343 | 7.13 | 364 | 7.81 | 403 | 9.18 | 443 | 10.82 | 480 | 12.43 | 515 | 14.05 | 550 | 15.83 | **585** | **17.78** | **619** | **19.78** | **652** | **21.81** | **683** | **23.78** |
| 20032 | 3200 | 363 | 8.55 | 383 | 9.29 | 420 | 10.73 | 457 | 12.37 | 493 | 14.12 | 527 | 15.86 | 560 | 17.67 | **593** | **19.62** | **625** | **21.63** | **657** | **23.78** | **688** | **25.94** |
| 21284 | 3400 | 384 | 10.22 | 402 | 10.92 | 438 | 12.52 | 472 | 14.13 | 507 | 16.02 | 540 | 17.88 | 571 | 19.69 | **602** | **21.64** | **633** | **23.74** | **663** | **25.87** | **693** | **28.12** |
| 22536 | 3600 | 404 | 12.00 | 422 | 12.82 | 455 | 14.38 | 488 | 16.12 | 521 | 18.04 | **553** | **20.02** | **583** | **21.93** | **613** | **23.98** | **642** | **26.03** | **671** | **28.23** | | |
| 23788 | 3800 | 425 | 14.06 | 441 | 14.82 | 474 | 16.60 | 505 | 18.38 | **536** | **20.30** | **567** | **22.40** | **596** | **24.40** | **625** | **26.54** | **652** | **28.55** | | | | |

**MAXIMUM RPM:** Class I - 579 Class II - 694

## VSFC36

**Outlet Area - 7.66 ft$^2$ Wheel Dia. - 36.50 Inches Tip Speed - 9.56 x RPM**

| CFM | OV | 0.25" | | 0.5" | | 1" | | 1.5" | | 2" | | 2.5" | | 3" | | 3.5" | | 4" | | 4.5" | | 5" | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 6128 | 800 | 141 | 0.41 | | | | | | | | | | | | | | | | | | | | |
| 7660 | 1000 | 150 | 0.60 | 196 | 0.98 | | | | | | | | | | | | | | | | | | |
| 9192 | 1200 | 162 | 0.86 | 202 | 1.28 | | | | | | | | | | | | | | | | | | |
| 10724 | 1400 | 175 | 1.20 | 211 | 1.66 | 277 | 2.74 | | | | | | | | | | | | | | | | |
| 12256 | 1600 | 190 | 1.65 | 223 | 2.16 | 283 | 3.33 | 337 | 4.60 | | | | | | | | | | | | | | |
| 13788 | 1800 | 206 | 2.21 | 236 | 2.78 | 290 | 3.97 | 342 | 5.42 | 389 | 6.89 | | | | | | | | | | | | |
| 15320 | 2000 | 223 | 2.92 | 249 | 3.47 | 300 | 4.80 | 347 | 6.25 | 393 | 7.91 | 434 | 9.50 | | | | | | | | | | |
| 16852 | 2200 | 240 | 3.75 | 264 | 4.35 | 312 | 5.81 | 355 | 7.28 | 398 | 9.01 | 438 | 10.77 | 476 | 12.59 | | | | | | | | |
| 18384 | 2400 | 257 | 4.72 | 279 | 5.35 | 324 | 6.91 | 365 | 8.51 | 404 | 10.20 | 443 | 12.14 | 480 | 14.12 | 514 | 16.02 | | | | | | |
| 19916 | 2600 | 275 | 5.90 | 296 | 6.61 | 337 | 8.19 | 376 | 9.90 | 413 | 11.69 | 449 | 13.62 | 484 | 15.67 | 519 | 17.90 | **550** | **19.91** | | | | |
| 21448 | 2800 | 292 | 7.19 | 312 | 7.96 | 350 | 9.58 | 388 | 11.48 | 423 | 13.35 | 457 | 15.33 | 490 | 17.42 | 523 | 19.71 | **555** | **22.05** | **585** | **24.33** | **614** | **26.62** |
| 22980 | 3000 | 310 | 8.72 | 329 | 9.55 | 365 | 11.29 | 400 | 13.18 | 434 | 15.21 | 466 | 17.24 | 498 | 19.46 | 529 | 21.76 | **559** | **24.12** | **589** | **26.63** | **617** | **29.03** |
| 24512 | 3200 | 329 | 10.54 | 346 | 11.33 | 380 | 13.16 | 413 | 15.12 | 446 | 17.31 | 477 | 19.48 | 506 | 21.58 | **536** | **23.99** | **565** | **26.46** | **594** | **29.10** | **622** | **31.73** |
| 26044 | 3400 | 347 | 12.48 | 364 | 13.42 | 396 | 15.32 | 427 | 17.32 | 458 | 19.55 | 488 | 21.85 | 516 | 24.06 | **544** | **26.44** | **572** | **29.00** | **600** | **31.74** | **627** | **34.49** |
| 27576 | 3600 | 365 | 14.65 | 381 | 15.62 | 412 | 17.67 | 441 | 19.70 | 471 | 22.06 | 500 | 24.50 | **527** | **26.82** | **554** | **29.30** | **580** | **31.78** | **606** | **34.43** | | |
| 29108 | 3800 | 384 | 17.17 | 399 | 18.17 | 428 | 20.24 | 456 | 22.40 | 484 | 24.75 | **512** | **27.30** | **539** | **29.88** | **565** | **32.46** | **590** | **35.02** | **615** | **37.73** | | |

**MAXIMUM RPM:** Class I - 523 Class II - 628

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

Class I fans are shown non-shaded.
Class II fans are shown shaded.

# Performance Data

## VSAC12

**Outlet Area - 0.86 ft$^2$ Wheel Dia. - 12.25 Inches Tip Speed - 3.21 x RPM Max. BHP = 0.045 (RPM/1000)$^3$**

| | | 0.25" | | 0.5" | | 1" | | 1.5" | | 2" | | 3" | | 4" | | 5" | | 6" | | 7" | | 8" | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CFM | OV | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 688 | 800 | 1070 | 0.05 | 1242 | 0.09 | 1510 | 0.16 | 1738 | 0.24 | 1952 | 0.33 | | | | | | | | | | | | |
| 860 | 1000 | 1251 | 0.08 | 1402 | 0.12 | 1656 | 0.20 | 1864 | 0.29 | 2051 | 0.39 | 2398 | 0.61 | 2731 | 0.86 | | | | | | | | |
| 1032 | 1200 | 1441 | 0.11 | 1574 | 0.16 | 1810 | 0.26 | 2010 | 0.37 | 2185 | 0.47 | 2497 | 0.70 | 2786 | 0.96 | 3069 | 1.25 | | | | | | |
| 1204 | 1400 | 1637 | 0.16 | 1756 | 0.22 | 1970 | 0.33 | 2163 | 0.45 | 2331 | 0.57 | 2625 | 0.82 | 2892 | 1.09 | 3142 | 1.39 | 3386 | 1.71 | 3627 | 2.05 | 3861 | 2.41 |
| 1376 | 1600 | 1837 | 0.22 | 1945 | 0.28 | 2140 | 0.41 | 2320 | 0.54 | 2484 | 0.68 | 2770 | 0.96 | 3020 | 1.25 | 3255 | 1.55 | 3476 | 1.89 | 3691 | 2.24 | 3904 | 2.61 |
| 1548 | 1800 | 2040 | 0.30 | 2138 | 0.37 | 2318 | 0.50 | 2484 | 0.65 | 2641 | 0.80 | 2920 | 1.12 | 3164 | 1.43 | 3384 | 1.75 | 3595 | 2.10 | 3795 | 2.46 | 3989 | 2.84 |
| 1720 | 2000 | 2245 | 0.39 | 2335 | 0.47 | 2502 | 0.62 | 2656 | 0.77 | 2803 | 0.94 | 3074 | 1.29 | 3312 | 1.63 | 3528 | 1.98 | 3727 | 2.34 | 3917 | 2.71 | **4102** | **3.11** |
| 1892 | 2200 | 2452 | 0.51 | 2535 | 0.59 | 2690 | 0.76 | 2835 | 0.92 | 2972 | 1.09 | 3231 | 1.47 | 3465 | 1.86 | 3676 | 2.23 | 3872 | 2.62 | **4055** | **3.02** | **4228** | **3.42** |
| 2064 | 2400 | 2660 | 0.64 | 2737 | 0.73 | 2882 | 0.92 | 3018 | 1.09 | 3147 | 1.27 | 3392 | 1.67 | 3620 | 2.09 | 3828 | 2.51 | **4019** | **2.92** | **4199** | **3.34** | **4369** | **3.77** |
| 2236 | 2600 | 2869 | 0.79 | 2941 | 0.89 | 3077 | 1.09 | 3206 | 1.29 | 3327 | 1.48 | 3559 | 1.89 | 3779 | 2.34 | 3983 | 2.80 | **4171** | **3.25** | **4347** | **3.70** | **4514** | **4.15** |
| 2408 | 2800 | 3079 | 0.97 | 3146 | 1.08 | 3274 | 1.30 | 3396 | 1.51 | 3512 | 1.72 | 3731 | 2.14 | 3941 | 2.61 | **4140** | **3.10** | **4325** | **3.59** | **4498** | **4.08** | **4663** | **4.56** |
| 2580 | 3000 | 3289 | 1.18 | 3352 | 1.30 | 3473 | 1.53 | 3589 | 1.76 | 3699 | 1.98 | 3908 | 2.43 | **4108** | **2.91** | **4300** | **3.42** | **4482** | **3.95** | **4653** | **4.48** | **4814** | **5.00** |
| 2752 | 3200 | 3501 | 1.42 | 3560 | 1.54 | 3674 | 1.79 | 3784 | 2.03 | 3890 | 2.28 | **4090** | **2.75** | **4279** | **3.24** | **4463** | **3.77** | **4641** | **4.33** | **4809** | **4.90** | **4968** | **5.45** |
| 2924 | 3400 | 3712 | 1.68 | 3768 | 1.81 | 3876 | 2.08 | 3981 | 2.34 | **4082** | **2.60** | **4274** | **3.10** | **4456** | **3.61** | **4631** | **4.15** | **4802** | **4.73** | **4967** | **5.33** | **5125** | **5.93** |
| 3096 | 3600 | 3924 | 1.98 | 3977 | 2.12 | **4080** | **2.40** | **4180** | **2.68** | **4276** | **2.95** | **4461** | **3.49** | **4636** | **4.03** | **4804** | **4.58** | **4968** | **5.17** | **5128** | **5.79** | | |
| 3268 | 3800 | **4136** | **2.31** | **4186** | **2.46** | **4285** | **2.75** | **4380** | **3.05** | **4473** | **3.34** | **4650** | **3.92** | **4819** | **4.48** | **4981** | **5.05** | **5138** | **5.64** | | | | |

**MAXIMUM RPM:** Class I - 3990 Class II - 5205 Selections above 4000 RPM not recommended. Consult factory.

## VSAC13

**Outlet Area - 1.05 ft$^2$ Wheel Dia. - 13.50 Inches Tip Speed - 3.53 x RPM Max. BHP = 0.081 (RPM/1000)$^3$**

| | | 0.25" | | 0.5" | | 1" | | 1.5" | | 2" | | 3" | | 4" | | 5" | | 6" | | 7" | | 8" | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CFM | OV | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 840 | 800 | 886 | 0.05 | 1050 | 0.09 | 1327 | 0.19 | | | | | | | | | | | | | | | | |
| 1050 | 1000 | 1024 | 0.08 | 1171 | 0.13 | 1410 | 0.23 | 1628 | 0.34 | | | | | | | | | | | | | | |
| 1260 | 1200 | 1173 | 0.11 | 1298 | 0.17 | 1526 | 0.29 | 1713 | 0.41 | 1891 | 0.54 | | | | | | | | | | | | |
| 1470 | 1400 | 1326 | 0.16 | 1438 | 0.22 | 1648 | 0.36 | 1827 | 0.49 | 1986 | 0.64 | 2300 | 0.97 | | | | | | | | | | |
| 1680 | 1600 | 1482 | 0.22 | 1586 | 0.29 | 1773 | 0.44 | 1948 | 0.59 | 2100 | 0.75 | 2370 | 1.08 | 2653 | 1.48 | | | | | | | | |
| 1890 | 1800 | 1641 | 0.29 | 1737 | 0.37 | 1906 | 0.53 | 2071 | 0.70 | 2221 | 0.88 | 2479 | 1.24 | 2713 | 1.61 | 2968 | 2.07 | 3235 | 2.62 | | | | |
| 2100 | 2000 | 1802 | 0.37 | 1891 | 0.46 | 2048 | 0.64 | 2197 | 0.83 | 2343 | 1.02 | 2596 | 1.42 | 2819 | 1.82 | 3027 | 2.24 | 3256 | 2.75 | **3498** | **3.34** | | |
| 2310 | 2200 | 1964 | 0.48 | 2047 | 0.57 | 2195 | 0.77 | 2332 | 0.97 | 2467 | 1.18 | 2717 | 1.61 | 2933 | 2.05 | 3132 | 2.50 | **3321** | **2.96** | **3525** | **3.50** | **3745** | **4.13** |
| 2520 | 2400 | 2127 | 0.60 | 2205 | 0.70 | 2346 | 0.92 | 2473 | 1.13 | 2597 | 1.35 | 2839 | 1.82 | 3052 | 2.30 | 3244 | 2.77 | **3426** | **3.27** | **3598** | **3.77** | **3781** | **4.33** |
| 2730 | 2600 | 2291 | 0.74 | 2364 | 0.85 | 2498 | 1.08 | 2619 | 1.32 | 2734 | 1.55 | 2962 | 2.05 | 3174 | 2.57 | **3362** | **3.08** | **3537** | **3.60** | **3705** | **4.13** | **3864** | **4.67** |
| 2940 | 2800 | 2457 | 0.91 | 2525 | 1.03 | 2652 | 1.27 | 2768 | 1.52 | 2876 | 1.77 | 3089 | 2.30 | **3296** | **2.85** | **3483** | **3.40** | **3654** | **3.95** | **3816** | **4.51** | **3971** | **5.09** |
| 3150 | 3000 | 2622 | 1.10 | 2687 | 1.23 | 2808 | 1.49 | 2919 | 1.75 | 3022 | 2.02 | 3221 | 2.57 | **3419** | **3.16** | **3605** | **3.75** | **3775** | **4.34** | **3932** | **4.93** | **4083** | **5.53** |
| 3360 | 3200 | 2789 | 1.31 | 2849 | 1.45 | 2965 | 1.73 | 3072 | 2.01 | 3171 | 2.30 | **3359** | **2.87** | **3546** | **3.48** | **3727** | **4.11** | **3897** | **4.75** | **4053** | **5.38** | **4200** | **6.01** |
| 3570 | 3400 | 2955 | 1.55 | 3013 | 1.70 | 3123 | 2.00 | 3226 | 2.30 | **3322** | **2.60** | **3501** | **3.21** | **3677** | **3.84** | **3851** | **4.50** | **4019** | **5.18** | **4175** | **5.85** | | |
| 3780 | 3600 | 3122 | 1.82 | 3177 | 1.98 | **3282** | **2.30** | **3381** | **2.61** | **3474** | **2.93** | **3647** | **3.57** | **3812** | **4.23** | **3979** | **4.92** | **4142** | **5.63** | | | | |
| 3990 | 3800 | **3290** | **2.13** | **3342** | **2.29** | **3442** | **2.62** | **3537** | **2.96** | **3628** | **3.29** | **3795** | **3.97** | **3953** | **4.65** | **4110** | **5.37** | | | | | | |

**MAXIMUM RPM:** Class I - 3265 Class II - 4259 Selections above 4000 RPM not recommended. Consult factory.

## VSAC15

**Outlet Area - 1.29 ft$^2$ Wheel Dia. - 15.00 Inches Tip Speed - 3.93 x RPM Max. BHP = 0.125(RPM/1000)$^3$**

| | | 0.25" | | 0.5" | | 1" | | 1.5" | | 2" | | 3" | | 4" | | 5" | | 6" | | 7" | | 8" | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CFM | OV | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 1032 | 800 | 874 | 0.08 | 1015 | 0.13 | 1233 | 0.23 | 1420 | 0.35 | 1594 | 0.49 | | | | | | | | | | | | |
| 1290 | 1000 | 1022 | 0.12 | 1145 | 0.18 | 1353 | 0.31 | 1522 | 0.44 | 1675 | 0.58 | 1958 | 0.91 | 2231 | 1.29 | | | | | | | | |
| 1548 | 1200 | 1177 | 0.17 | 1285 | 0.24 | 1479 | 0.39 | 1642 | 0.55 | 1784 | 0.71 | 2040 | 1.05 | 2275 | 1.44 | 2506 | 1.87 | | | | | | |
| 1806 | 1400 | 1337 | 0.24 | 1434 | 0.32 | 1610 | 0.49 | 1766 | 0.67 | 1904 | 0.85 | 2144 | 1.23 | 2362 | 1.63 | 2566 | 2.08 | 2765 | 2.56 | 2962 | 3.08 | 3153 | 3.62 |
| 2064 | 1600 | 1501 | 0.34 | 1589 | 0.43 | 1748 | 0.61 | 1895 | 0.81 | 2029 | 1.02 | 2263 | 1.44 | 2467 | 1.87 | 2658 | 2.33 | 2839 | 2.83 | 3015 | 3.36 | 3189 | 3.92 |
| 2322 | 1800 | 1667 | 0.45 | 1747 | 0.55 | 1893 | 0.75 | 2029 | 0.97 | 2158 | 1.21 | 2385 | 1.67 | 2584 | 2.14 | 2764 | 2.63 | 2936 | 3.14 | 3100 | 3.69 | 3258 | 4.27 |
| 2580 | 2000 | 1834 | 0.59 | 1908 | 0.71 | 2044 | 0.93 | 2170 | 1.16 | 2290 | 1.41 | 2511 | 1.93 | 2705 | 2.45 | 2882 | 2.97 | 3044 | 3.51 | 3200 | 4.07 | **3351** | **4.67** |
| 2838 | 2200 | 2003 | 0.76 | 2071 | 0.89 | 2198 | 1.14 | 2316 | 1.38 | 2427 | 1.64 | 2640 | 2.21 | 2830 | 2.78 | 3003 | 3.35 | 3163 | 3.93 | **3312** | **4.52** | **3453** | **5.12** |
| 3096 | 2400 | 2173 | 0.96 | 2236 | 1.10 | 2355 | 1.37 | 2466 | 1.64 | 2571 | 1.91 | 2771 | 2.50 | 2957 | 3.14 | 3126 | 3.76 | **3283** | **4.38** | **3430** | **5.01** | **3569** | **5.66** |
| 3354 | 2600 | 2344 | 1.19 | 2402 | 1.34 | 2514 | 1.64 | 2619 | 1.94 | 2718 | 2.22 | 2907 | 2.83 | 3087 | 3.51 | 3253 | 4.20 | **3407** | **4.87** | **3551** | **5.55** | **3687** | **6.22** |
| 3612 | 2800 | 2515 | 1.46 | 2570 | 1.62 | 2675 | 1.95 | 2774 | 2.27 | 2869 | 2.58 | 3048 | 3.21 | 3219 | 3.91 | **3382** | **4.66** | **3533** | **5.39** | **3674** | **6.11** | **3808** | **6.84** |
| 3870 | 3000 | 2687 | 1.77 | 2739 | 1.95 | 2838 | 2.30 | 2932 | 2.64 | 3022 | 2.98 | 3193 | 3.65 | **3355** | **4.36** | **3512** | **5.13** | **3661** | **5.93** | **3800** | **6.72** | **3932** | **7.49** |
| 4128 | 3200 | 2860 | 2.12 | 2908 | 2.31 | 3002 | 2.68 | 3091 | 3.05 | 3178 | 3.42 | **3341** | **4.13** | **3496** | **4.86** | **3646** | **5.66** | **3791** | **6.50** | **3928** | **7.34** | **4058** | **8.18** |
| 4386 | 3400 | 3033 | 2.52 | 3078 | 2.72 | 3167 | 3.12 | 3252 | 3.51 | **3335** | **3.90** | **3491** | **4.66** | **3640** | **5.42** | **3783** | **6.23** | **3923** | **7.10** | **4058** | **8.00** | **4186** | **8.90** |
| 4644 | 3600 | 3206 | 2.97 | 3249 | 3.18 | **3333** | **3.60** | **3415** | **4.02** | **3494** | **4.43** | **3644** | **5.24** | **3787** | **6.04** | **3924** | **6.86** | **4058** | **7.75** | **4189** | **8.68** | | |
| 4902 | 3800 | **3379** | **3.47** | **3420** | **3.69** | **3500** | **4.13** | **3578** | **4.57** | **3654** | **5.01** | **3799** | **5.88** | **3936** | **6.71** | **4069** | **7.57** | **4197** | **8.47** | | | | |

**MAXIMUM RPM:** Class I - 3260 Class II - 4252 Selections above 4000 RPM not recommended. Consult factory.

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

Class I fans are shown non-shaded.
Class II fans are shown shaded.

# Performance Data

## VSAC16

**Outlet Area - 1.57 ft$^2$ Wheel Dia. - 16.50 Inches Tip Speed - 4.32 x RPM Max. BHP = 0.222 (RPM/1000)$^3$**

| | | 0.25" | | 0.5" | | 1" | | 1.5" | | 2" | | 3" | | 4" | | 5" | | 6" | | 7" | | 8" | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CFM | OV | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 1256 | 800 | 726 | 0.08 | 859 | 0.14 | 1086 | 0.28 | | | | | | | | | | | | | | | | |
| 1570 | 1000 | 838 | 0.12 | 959 | 0.19 | 1154 | 0.34 | 1332 | 0.51 | | | | | | | | | | | | | | |
| 1884 | 1200 | 960 | 0.17 | 1063 | 0.25 | 1249 | 0.43 | 1402 | 0.61 | 1547 | 0.81 | | | | | | | | | | | | |
| 2198 | 1400 | 1086 | 0.24 | 1177 | 0.33 | 1349 | 0.53 | 1496 | 0.74 | 1625 | 0.95 | 1882 | 1.44 | | | | | | | | | | |
| 2512 | 1600 | 1214 | 0.32 | 1298 | 0.43 | 1451 | 0.65 | 1595 | 0.89 | 1719 | 1.12 | 1940 | 1.61 | 2171 | 2.21 | 2413 | 2.95 | | | | | | |
| 2826 | 1800 | 1344 | 0.43 | 1422 | 0.55 | 1561 | 0.79 | 1695 | 1.05 | 1818 | 1.32 | 2029 | 1.85 | 2220 | 2.41 | 2429 | 3.10 | 2647 | 3.92 | | | | |
| 3140 | 2000 | 1475 | 0.56 | 1548 | 0.69 | 1677 | 0.96 | 1799 | 1.24 | 1918 | 1.53 | 2125 | 2.12 | 2307 | 2.72 | 2478 | 3.35 | 2664 | 4.10 | **2862** | **4.99** | | |
| 3454 | 2200 | 1608 | 0.71 | 1676 | 0.86 | 1797 | 1.15 | 1909 | 1.45 | 2020 | 1.76 | 2224 | 2.41 | 2400 | 3.06 | 2564 | 3.73 | **2718** | **4.42** | **2885** | **5.23** | **3064** | **6.17** |
| 3768 | 2400 | 1742 | 0.90 | 1805 | 1.05 | 1921 | 1.37 | 2025 | 1.69 | 2126 | 2.03 | 2324 | 2.73 | 2498 | 3.44 | 2655 | 4.15 | **2804** | **4.88** | **2945** | **5.63** | **3094** | **6.47** |
| 4082 | 2600 | 1876 | 1.11 | 1936 | 1.28 | 2046 | 1.62 | 2144 | 1.97 | 2238 | 2.32 | 2425 | 3.07 | 2598 | 3.84 | **2752** | **4.60** | **2895** | **5.38** | **3032** | **6.18** | **3162** | **6.98** |
| 4396 | 2800 | 2012 | 1.36 | 2068 | 1.54 | 2172 | 1.91 | 2266 | 2.28 | 2355 | 2.66 | 2529 | 3.44 | **2698** | **4.27** | **2851** | **5.09** | **2991** | **5.92** | **3123** | **6.75** | **3251** | **7.61** |
| 4710 | 3000 | 2147 | 1.64 | 2200 | 1.84 | 2299 | 2.23 | 2390 | 2.63 | 2474 | 3.02 | 2637 | 3.85 | **2799** | **4.72** | **2951** | **5.61** | **3090** | **6.49** | **3219** | **7.38** | **3342** | **8.27** |
| 5024 | 3200 | 2284 | 1.96 | 2333 | 2.17 | 2427 | 2.59 | 2515 | 3.01 | 2596 | 3.44 | **2750** | **4.30** | **2903** | **5.21** | **3051** | **6.15** | **3190** | **7.10** | **3317** | **8.04** | **3438** | **8.99** |
| 5338 | 3400 | 2420 | 2.32 | 2467 | 2.55 | 2557 | 2.99 | 2641 | 3.44 | **2720** | **3.89** | **2867** | **4.80** | **3010** | **5.75** | **3153** | **6.74** | **3290** | **7.74** | **3417** | **8.75** | | |
| 5652 | 3600 | 2557 | 2.73 | 2602 | 2.97 | **2687** | **3.44** | **2768** | **3.91** | **2845** | **4.39** | **2986** | **5.34** | **3121** | **6.33** | **3257** | **7.36** | **3390** | **8.41** | | | | |
| 5966 | 3800 | **2694** | **3.18** | **2737** | **3.43** | **2819** | **3.93** | **2896** | **4.43** | **2970** | **4.93** | **3107** | **5.94** | **3236** | **6.96** | **3364** | **8.02** | | | | | | |

**MAXIMUM RPM:** Class I - 2673 Class II - 3487

## VSAC18

**Outlet Area - 1.92 ft$^2$ Wheel Dia. - 18.25 Inches Tip Speed - 4.78 x RPM Max. BHP = 0.43 (RPM/1000)$^3$**

| | | 0.25" | | 0.5" | | 1" | | 1.5" | | 2" | | 3" | | 4" | | 5" | | 6" | | 7" | | 8" | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CFM | OV | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 1536 | 800 | 616 | 0.10 | 736 | 0.17 | 941 | 0.32 | | | | | | | | | | | | | | | | |
| 1920 | 1000 | 710 | 0.15 | 814 | 0.23 | 996 | 0.41 | 1157 | 0.60 | | | | | | | | | | | | | | |
| 2304 | 1200 | 811 | 0.22 | 903 | 0.31 | 1066 | 0.52 | 1212 | 0.73 | 1346 | 0.96 | | | | | | | | | | | | |
| 2688 | 1400 | 916 | 0.31 | 998 | 0.42 | 1146 | 0.64 | 1280 | 0.89 | 1404 | 1.15 | 1633 | 1.69 | | | | | | | | | | |
| 3072 | 1600 | 1023 | 0.42 | 1097 | 0.54 | 1232 | 0.80 | 1357 | 1.07 | 1472 | 1.35 | 1684 | 1.94 | 1882 | 2.58 | | | | | | | | |
| 3456 | 1800 | 1132 | 0.56 | 1201 | 0.70 | 1324 | 0.98 | 1439 | 1.27 | 1547 | 1.58 | 1747 | 2.23 | 1931 | 2.90 | 2106 | 3.62 | 2283 | 4.41 | | | | |
| 3840 | 2000 | 1243 | 0.73 | 1306 | 0.89 | 1421 | 1.20 | 1528 | 1.52 | 1629 | 1.85 | 1817 | 2.55 | 1992 | 3.28 | 2155 | 4.03 | **2313** | **4.82** | **2472** | **5.68** | | |
| 4224 | 2200 | 1354 | 0.94 | 1413 | 1.11 | 1520 | 1.45 | 1620 | 1.80 | 1715 | 2.15 | 1893 | 2.90 | 2059 | 3.68 | 2215 | 4.49 | **2363** | **5.32** | **2507** | **6.18** | **2651** | **7.11** |
| 4608 | 2400 | 1467 | 1.18 | 1521 | 1.37 | 1622 | 1.74 | 1716 | 2.11 | 1805 | 2.50 | 1974 | 3.29 | 2132 | 4.13 | 2281 | 4.99 | **2423** | **5.87** | **2559** | **6.77** | **2692** | **7.71** |
| 4992 | 2600 | 1580 | 1.47 | 1631 | 1.67 | 1726 | 2.08 | 1814 | 2.48 | 1899 | 2.89 | 2059 | 3.73 | 2210 | 4.62 | **2352** | **5.53** | **2489** | **6.47** | **2620** | **7.43** | **2746** | **8.40** |
| 5376 | 2800 | 1694 | 1.80 | 1742 | 2.02 | 1832 | 2.46 | 1916 | 2.89 | 1995 | 3.32 | 2148 | 4.22 | 2292 | 5.16 | **2429** | **6.12** | **2559** | **7.10** | **2685** | **8.12** | **2807** | **9.15** |
| 5760 | 3000 | 1808 | 2.18 | 1853 | 2.42 | 1938 | 2.88 | 2018 | 3.35 | 2094 | 3.81 | 2239 | 4.76 | **2377** | **5.74** | **2508** | **6.75** | **2634** | **7.79** | **2755** | **8.86** | **2873** | **9.95** |
| 6144 | 3200 | 1923 | 2.61 | 1965 | 2.86 | 2046 | 3.36 | 2123 | 3.86 | 2195 | 4.35 | **2333** | **5.35** | **2465** | **6.38** | **2591** | **7.45** | **2713** | **8.54** | **2830** | **9.66** | | |
| 6528 | 3400 | 2038 | 3.10 | 2078 | 3.37 | 2155 | 3.90 | 2228 | 4.43 | **2297** | **4.95** | **2429** | **6.00** | **2556** | **7.09** | **2677** | **8.20** | **2795** | **9.35** | | | | |
| 6912 | 3600 | 2153 | 3.64 | 2191 | 3.93 | 2264 | 4.49 | **2334** | **5.05** | **2401** | **5.61** | **2528** | **6.72** | **2649** | **7.85** | **2766** | **9.02** | **2879** | **10.21** | | | | |
| 7296 | 3800 | 2269 | 4.26 | **2305** | **4.55** | **2374** | **5.14** | **2441** | **5.73** | **2506** | **6.33** | **2628** | **7.50** | **2744** | **8.68** | **2857** | **9.90** | | | | | | |

**MAXIMUM RPM:** Class I - 2294 Class II - 2902

## VSAC20

**Outlet Area - 2.30 ft$^2$ Wheel Dia. - 20.00 Inches Tip Speed - 5.24 x RPM Max. BHP = 0.68 (RPM/1000)$^3$**

| | | 0.25" | | 0.5" | | 1" | | 1.5" | | 2" | | 3" | | 4" | | 5" | | 6" | | 7" | | 8" | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CFM | OV | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 1840 | 800 | 561 | 0.12 | 671 | 0.20 | 858 | 0.39 | | | | | | | | | | | | | | | | |
| 2300 | 1000 | 647 | 0.18 | 742 | 0.28 | 908 | 0.49 | 1055 | 0.72 | | | | | | | | | | | | | | |
| 2760 | 1200 | 739 | 0.26 | 822 | 0.37 | 972 | 0.62 | 1105 | 0.88 | 1227 | 1.15 | | | | | | | | | | | | |
| 3220 | 1400 | 834 | 0.37 | 909 | 0.50 | 1044 | 0.77 | 1166 | 1.06 | 1280 | 1.37 | 1489 | 2.02 | | | | | | | | | | |
| 3680 | 1600 | 931 | 0.50 | 1000 | 0.65 | 1123 | 0.95 | 1236 | 1.28 | 1341 | 1.61 | 1535 | 2.32 | 1717 | 3.09 | | | | | | | | |
| 4140 | 1800 | 1031 | 0.67 | 1093 | 0.84 | 1206 | 1.17 | 1312 | 1.53 | 1410 | 1.89 | 1593 | 2.67 | 1760 | 3.47 | 1921 | 4.34 | 2083 | 5.28 | | | | |
| 4600 | 2000 | 1131 | 0.87 | 1189 | 1.06 | 1294 | 1.43 | 1392 | 1.82 | 1484 | 2.21 | 1656 | 3.05 | 1816 | 3.92 | 1965 | 4.82 | **2110** | **5.78** | **2255** | **6.81** | | |
| 5060 | 2200 | 1233 | 1.12 | 1286 | 1.32 | 1385 | 1.73 | 1476 | 2.15 | 1563 | 2.58 | 1726 | 3.47 | 1877 | 4.41 | 2020 | 5.38 | **2155** | **6.37** | **2287** | **7.41** | **2418** | **8.51** |
| 5520 | 2400 | 1335 | 1.41 | 1385 | 1.64 | 1478 | 2.08 | 1563 | 2.53 | 1645 | 2.99 | 1799 | 3.94 | 1943 | 4.94 | 2079 | 5.97 | **2210** | **7.04** | **2334** | **8.12** | **2455** | **9.24** |
| 5980 | 2600 | 1438 | 1.75 | 1485 | 2.00 | 1572 | 2.48 | 1653 | 2.96 | 1730 | 3.45 | 1876 | 4.46 | 2014 | 5.52 | **2144** | **6.61** | **2269** | **7.75** | **2389** | **8.90** | **2504** | **10.06** |
| 6440 | 2800 | 1542 | 2.15 | 1586 | 2.41 | 1668 | 2.93 | 1745 | 3.45 | 1817 | 3.96 | 1957 | 5.05 | 2088 | 6.16 | **2214** | **7.32** | **2333** | **8.51** | **2448** | **9.72** | **2560** | **10.97** |
| 6900 | 3000 | 1646 | 2.60 | 1687 | 2.88 | 1765 | 3.44 | 1838 | 4.00 | 1907 | 4.55 | 2040 | 5.69 | **2166** | **6.87** | **2286** | **8.08** | **2401** | **9.33** | **2512** | **10.61** | **2619** | **11.91** |
| 7360 | 3200 | 1750 | 3.11 | 1789 | 3.41 | 1863 | 4.01 | 1933 | 4.61 | 1999 | 5.20 | **2125** | **6.39** | **2246** | **7.63** | **2361** | **8.91** | **2473** | **10.23** | **2580** | **11.57** | | |
| 7820 | 3400 | 1855 | 3.70 | 1892 | 4.02 | 1962 | 4.65 | 2029 | 5.29 | 2092 | 5.91 | **2213** | **7.17** | **2328** | **8.47** | **2440** | **9.81** | **2547** | **11.18** | | | | |
| 8280 | 3600 | 1960 | 4.35 | 1995 | 4.69 | 2061 | 5.35 | **2125** | **6.02** | **2187** | **6.70** | **2302** | **8.02** | **2413** | **9.38** | **2520** | **10.78** | **2623** | **12.21** | | | | |
| 8740 | 3800 | 2065 | 5.07 | **2098** | **5.43** | **2162** | **6.14** | **2223** | **6.85** | **2282** | **7.55** | **2393** | **8.95** | **2500** | **10.37** | **2603** | **11.83** | | | | | | |

**MAXIMUM RPM:** Class I - 2093 Class II - 2648

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

Class I fans are shown non-shaded.
Class II fans are shown shaded.

# Performance Data

## VSAC22

**Outlet Area - 2.85 ft$^2$ Wheel Dia. - 22.25 Inches Tip Speed - 5.84 x RPM Max. BHP = 1.16 (RPM/1000)$^3$**

| | | 0.25" | | 0.5" | | 1" | | 1.5" | | 2" | | 3" | | 4" | | 5" | | 6" | | 7" | | 8" | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CFM | OV | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 2280 | 800 | 505 | 0.15 | 603 | 0.25 | 772 | 0.48 | | | | | | | | | | | | | | | | |
| 2850 | 1000 | 582 | 0.22 | 668 | 0.34 | 816 | 0.61 | 948 | 0.89 | | | | | | | | | | | | | | |
| 3420 | 1200 | 665 | 0.32 | 740 | 0.46 | 874 | 0.77 | 993 | 1.09 | 1104 | 1.43 | | | | | | | | | | | | |
| 3990 | 1400 | 750 | 0.45 | 817 | 0.61 | 939 | 0.95 | 1049 | 1.32 | 1151 | 1.70 | 1339 | 2.51 | | | | | | | | | | |
| 4560 | 1600 | 838 | 0.62 | 899 | 0.81 | 1010 | 1.18 | 1112 | 1.58 | 1206 | 2.00 | 1381 | 2.88 | 1543 | 3.82 | | | | | | | | |
| 5130 | 1800 | 927 | 0.83 | 984 | 1.04 | 1085 | 1.45 | 1180 | 1.89 | 1268 | 2.35 | 1432 | 3.31 | 1583 | 4.31 | 1727 | 5.37 | 1872 | 6.54 | | | | |
| 5700 | 2000 | 1018 | 1.09 | 1070 | 1.32 | 1164 | 1.77 | 1252 | 2.25 | 1335 | 2.74 | 1490 | 3.78 | 1633 | 4.86 | 1767 | 5.98 | **1897** | **7.16** | **2027** | **8.43** | | |
| 6270 | 2200 | 1109 | 1.39 | 1158 | 1.65 | 1246 | 2.15 | 1327 | 2.66 | 1406 | 3.20 | 1552 | 4.30 | 1688 | 5.47 | 1816 | 6.66 | **1938** | **7.90** | **2056** | **9.18** | **2174** | **10.55** |
| 6840 | 2400 | 1202 | 1.76 | 1246 | 2.03 | 1329 | 2.58 | 1406 | 3.13 | 1479 | 3.70 | 1618 | 4.89 | 1748 | 6.13 | 1870 | 7.40 | **1987** | **8.72** | **2098** | **10.05** | **2207** | **11.44** |
| 7410 | 2600 | 1294 | 2.18 | 1336 | 2.48 | 1414 | 3.08 | 1487 | 3.67 | 1556 | 4.28 | 1688 | 5.54 | 1812 | 6.85 | **1928** | **8.20** | **2040** | **9.59** | **2148** | **11.03** | **2251** | **12.46** |
| 7980 | 2800 | 1388 | 2.67 | 1427 | 2.99 | 1501 | 3.64 | 1570 | 4.28 | 1635 | 4.92 | 1760 | 6.26 | 1878 | 7.64 | **1991** | **9.08** | **2098** | **10.54** | **2201** | **12.04** | **2302** | **13.59** |
| 8550 | 3000 | 1481 | 3.23 | 1518 | 3.58 | 1588 | 4.27 | 1654 | 4.96 | 1716 | 5.65 | 1835 | 7.05 | **1948** | **8.51** | **2056** | **10.02** | **2160** | **11.58** | **2259** | **13.15** | **2355** | **14.76** |
| 9120 | 3200 | 1575 | 3.87 | 1610 | 4.24 | 1676 | 4.98 | 1739 | 5.72 | 1799 | 6.45 | **1912** | **7.93** | **2020** | **9.46** | **2124** | **11.05** | **2224** | **12.67** | **2320** | **14.33** | | |
| 9690 | 3400 | 1669 | 4.59 | 1702 | 4.98 | 1765 | 5.77 | 1825 | 6.55 | **1882** | **7.33** | **1991** | **8.90** | **2094** | **10.50** | **2194** | **12.16** | **2291** | **13.87** | | | | |
| 10260 | 3600 | 1764 | 5.40 | 1795 | 5.82 | 1855 | 6.65 | **1912** | **7.48** | **1967** | **8.30** | **2071** | **9.95** | **2171** | **11.64** | **2267** | **13.37** | **2360** | **15.15** | | | | |
| 10830 | 3800 | 1858 | 6.29 | **1888** | **6.74** | **1945** | **7.62** | **2000** | **8.49** | **2053** | **9.37** | **2153** | **11.10** | **2249** | **12.87** | **2341** | **14.67** | | | | | | |

**MAXIMUM RPM:** Class I - 1881 Class II - 2381

## VSAC24

**Outlet Area - 3.45 ft$^2$ Wheel Dia. - 24.50 Inches Tip Speed - 6.41 x RPM Max. BHP = 1.87 (RPM/1000)$^3$**

| | | 0.25" | | 0.5" | | 1" | | 1.5" | | 2" | | 3" | | 4" | | 5" | | 6" | | 7" | | 8" | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CFM | OV | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 2760 | 800 | 458 | 0.18 | 547 | 0.30 | 701 | 0.58 | | | | | | | | | | | | | | | | |
| 3450 | 1000 | 528 | 0.27 | 606 | 0.42 | 741 | 0.74 | 861 | 1.08 | | | | | | | | | | | | | | |
| 4140 | 1200 | 603 | 0.39 | 671 | 0.56 | 793 | 0.93 | 902 | 1.32 | 1002 | 1.73 | | | | | | | | | | | | |
| 4830 | 1400 | 681 | 0.55 | 742 | 0.74 | 852 | 1.15 | 952 | 1.59 | 1045 | 2.06 | 1216 | 3.04 | | | | | | | | | | |
| 5520 | 1600 | 760 | 0.75 | 816 | 0.97 | 916 | 1.43 | 1009 | 1.92 | 1095 | 2.42 | 1253 | 3.48 | 1401 | 4.63 | | | | | | | | |
| 6210 | 1800 | 841 | 1.00 | 892 | 1.25 | 985 | 1.76 | 1071 | 2.29 | 1151 | 2.84 | 1300 | 4.00 | 1437 | 5.21 | 1568 | 6.50 | 1700 | 7.92 | | | | |
| 6900 | 2000 | 923 | 1.31 | 970 | 1.59 | 1056 | 2.14 | 1136 | 2.72 | 1212 | 3.32 | 1352 | 4.57 | 1482 | 5.88 | 1604 | 7.23 | **1722** | **8.66** | **1841** | **10.22** | | |
| 7590 | 2200 | 1006 | 1.68 | 1050 | 1.99 | 1130 | 2.60 | 1204 | 3.21 | 1275 | 3.86 | 1409 | 5.21 | 1532 | 6.61 | 1649 | 8.07 | **1759** | **9.55** | **1866** | **11.10** | **1974** | **12.78** |
| 8280 | 2400 | 1090 | 2.12 | 1130 | 2.45 | 1206 | 3.12 | 1275 | 3.78 | 1342 | 4.47 | 1468 | 5.91 | 1586 | 7.41 | 1697 | 8.95 | **1804** | **10.56** | **1905** | **12.17** | **2004** | **13.85** |
| 8970 | 2600 | 1174 | 2.63 | 1212 | 3.00 | 1283 | 3.72 | 1349 | 4.44 | 1412 | 5.17 | 1531 | 6.69 | 1644 | 8.29 | **1750** | **9.92** | **1852** | **11.62** | **1950** | **13.35** | **2044** | **15.10** |
| 9660 | 2800 | 1258 | 3.22 | 1294 | 3.61 | 1361 | 4.40 | 1424 | 5.17 | 1483 | 5.95 | 1597 | 7.57 | 1705 | 9.25 | **1807** | **10.98** | **1904** | **12.76** | **1998** | **14.58** | **2089** | **16.44** |
| 10350 | 3000 | 1343 | 3.90 | 1377 | 4.32 | 1440 | 5.16 | 1500 | 5.99 | 1557 | 6.83 | 1665 | 8.53 | **1768** | **10.30** | **1866** | **12.13** | **1960** | **14.00** | **2050** | **15.91** | **2138** | **17.87** |
| 11040 | 3200 | 1428 | 4.67 | 1460 | 5.12 | 1520 | 6.01 | 1577 | 6.90 | 1631 | 7.78 | **1734** | **9.58** | **1833** | **11.45** | **1927** | **13.36** | **2018** | **15.33** | **2105** | **17.33** | | |
| 11730 | 3400 | 1514 | 5.54 | 1544 | 6.02 | 1601 | 6.97 | 1656 | 7.93 | 1707 | 8.85 | **1806** | **10.75** | **1900** | **12.70** | **1991** | **14.71** | **2079** | **16.78** | | | | |
| 12420 | 3600 | 1599 | 6.51 | 1628 | 7.03 | 1682 | 8.03 | **1734** | **9.03** | **1784** | **10.03** | **1879** | **12.03** | **1969** | **14.06** | **2057** | **16.17** | **2141** | **18.31** | | | | |
| 13110 | 3800 | 1685 | 7.60 | **1712** | **8.14** | **1764** | **9.20** | **1814** | **10.26** | **1862** | **11.32** | **1953** | **13.42** | **2040** | **15.55** | **2124** | **17.74** | | | | | | |

**MAXIMUM RPM:** Class I - 1708 Class II - 2162

## VSAC27

**Outlet Area - 4.19 ft$^2$ Wheel Dia. - 27.00 Inches Tip Speed - 7.07 x RPM Max. BHP = 2.80 (RPM/1000)$^3$**

| | | 0.25" | | 0.5" | | 1" | | 1.5" | | 2" | | 3" | | 4" | | 5" | | 6" | | 7" | | 8" | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CFM | OV | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 3352 | 800 | 424 | 0.21 | 506 | 0.36 | 644 | 0.70 | | | | | | | | | | | | | | | | |
| 4190 | 1000 | 489 | 0.32 | 560 | 0.49 | 684 | 0.87 | 791 | 1.29 | | | | | | | | | | | | | | |
| 5028 | 1200 | 557 | 0.46 | 622 | 0.67 | 733 | 1.10 | 832 | 1.56 | 921 | 2.06 | | | | | | | | | | | | |
| 5866 | 1400 | 628 | 0.65 | 686 | 0.89 | 788 | 1.37 | 880 | 1.89 | 965 | 2.44 | 1117 | 3.64 | | | | | | | | | | |
| 6704 | 1600 | 702 | 0.88 | 754 | 1.16 | 849 | 1.71 | 933 | 2.27 | 1012 | 2.87 | 1155 | 4.14 | 1287 | 5.55 | | | | | | | | |
| 7542 | 1800 | 777 | 1.18 | 824 | 1.48 | 912 | 2.10 | 991 | 2.73 | 1065 | 3.38 | 1201 | 4.74 | 1324 | 6.20 | 1441 | 7.80 | | | | | | |
| 8380 | 2000 | 853 | 1.54 | 896 | 1.87 | 977 | 2.56 | 1052 | 3.25 | 1121 | 3.95 | 1250 | 5.41 | 1369 | 6.98 | 1477 | 8.60 | **1582** | **10.36** | | | | |
| 9218 | 2200 | 930 | 1.97 | 969 | 2.33 | 1045 | 3.09 | 1115 | 3.85 | 1181 | 4.61 | 1303 | 6.18 | 1416 | 7.83 | 1522 | 9.57 | **1620** | **11.35** | **1716** | **13.28** | **1813** | **15.40** |
| 10056 | 2400 | 1007 | 2.48 | 1044 | 2.88 | 1114 | 3.70 | 1181 | 4.53 | 1243 | 5.35 | 1359 | 7.03 | 1467 | 8.79 | **1569** | **10.61** | **1665** | **12.52** | **1755** | **14.46** | **1843** | **16.52** |
| 10894 | 2600 | 1085 | 3.07 | 1119 | 3.51 | 1185 | 4.39 | 1248 | 5.29 | 1307 | 6.18 | 1417 | 7.97 | 1520 | 9.82 | **1618** | **11.75** | **1711** | **13.74** | **1800** | **15.82** | **1884** | **17.94** |
| 11732 | 2800 | 1164 | 3.77 | 1195 | 4.23 | 1257 | 5.18 | 1316 | 6.14 | 1373 | 7.11 | 1479 | 9.04 | **1577** | **10.99** | **1671** | **13.03** | **1761** | **15.12** | **1847** | **17.28** | **1929** | **19.49** |
| 12570 | 3000 | 1242 | 4.56 | 1272 | 5.06 | 1330 | 6.07 | 1386 | 7.10 | 1440 | 8.13 | 1542 | 10.21 | **1636** | **12.27** | **1726** | **14.40** | **1812** | **16.58** | **1895** | **18.83** | **1976** | **21.17** |
| 13408 | 3200 | 1321 | 5.46 | 1349 | 5.99 | 1404 | 7.07 | 1457 | 8.16 | 1508 | 9.25 | **1606** | **11.46** | **1697** | **13.67** | **1783** | **15.89** | **1866** | **18.18** | **1947** | **20.55** | | |
| 14246 | 3400 | 1401 | 6.49 | 1427 | 7.05 | 1478 | 8.17 | 1529 | 9.34 | **1578** | **10.50** | **1672** | **12.85** | **1760** | **15.20** | **1843** | **17.54** | **1923** | **19.93** | | | | |
| 15084 | 3600 | 1480 | 7.62 | 1505 | 8.22 | **1554** | **9.42** | **1601** | **10.62** | **1648** | **11.86** | **1738** | **14.33** | **1824** | **16.83** | **1904** | **19.30** | **1982** | **21.82** | | | | |
| 15922 | 3800 | **1559** | **8.89** | **1583** | **9.52** | **1630** | **10.79** | **1675** | **12.06** | **1720** | **13.36** | **1806** | **15.96** | **1889** | **18.60** | **1967** | **21.21** | | | | | | |

**MAXIMUM RPM:** Class I - 1558 Class II - 1999

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

Class I fans are shown non-shaded.
Class II fans are shown shaded.

# Performance Data

## VSAC30

**Outlet Area - 5.17 ft$^2$ Wheel Dia. - 30.00 Inches Tip Speed - 7.85 x RPM Max. BHP = 4.74 (RPM/1000)$^3$**

| | | 0.25" | | 0.5" | | 1" | | 1.5" | | 2" | | 3" | | 4" | | 5" | | 6" | | 7" | | 8" | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CFM | OV | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 4136 | 800 | 382 | 0.26 | 455 | 0.44 | 579 | 0.86 | | | | | | | | | | | | | | | | |
| 5170 | 1000 | 440 | 0.40 | 504 | 0.61 | 616 | 1.08 | 712 | 1.60 | | | | | | | | | | | | | | |
| 6204 | 1200 | 501 | 0.57 | 559 | 0.82 | 660 | 1.35 | 749 | 1.93 | 829 | 2.55 | | | | | | | | | | | | |
| 7238 | 1400 | 565 | 0.80 | 618 | 1.10 | 709 | 1.69 | 792 | 2.33 | 868 | 3.01 | 1005 | 4.49 | | | | | | | | | | |
| 8272 | 1600 | 631 | 1.09 | 678 | 1.42 | 764 | 2.11 | 840 | 2.81 | 911 | 3.54 | 1040 | 5.11 | 1158 | 6.85 | | | | | | | | |
| 9306 | 1800 | 699 | 1.45 | 741 | 1.83 | 820 | 2.59 | 891 | 3.36 | 958 | 4.16 | 1081 | 5.85 | 1191 | 7.64 | 1296 | 9.61 | | | | | | |
| 10340 | 2000 | 767 | 1.89 | 806 | 2.31 | 879 | 3.15 | 946 | 4.01 | 1009 | 4.88 | 1125 | 6.68 | 1232 | 8.61 | 1329 | 10.61 | **1424** | **12.79** | | | | |
| 11374 | 2200 | 836 | 2.42 | 872 | 2.88 | 940 | 3.81 | 1004 | 4.76 | 1062 | 5.68 | 1172 | 7.62 | 1274 | 9.65 | 1370 | 11.81 | **1458** | **14.02** | **1544** | **16.38** | **1631** | **18.99** |
| 12408 | 2400 | 906 | 3.05 | 939 | 3.55 | 1002 | 4.56 | 1062 | 5.58 | 1118 | 6.60 | 1222 | 8.66 | 1320 | 10.84 | **1412** | **13.10** | **1498** | **15.43** | **1579** | **17.84** | **1658** | **20.37** |
| 13442 | 2600 | 976 | 3.79 | 1007 | 4.33 | 1066 | 5.42 | 1122 | 6.51 | 1176 | 7.63 | 1275 | 9.84 | 1368 | 12.13 | **1456** | **14.50** | **1540** | **16.97** | **1620** | **19.53** | **1695** | **22.12** |
| 14476 | 2800 | 1047 | 4.65 | 1075 | 5.22 | 1131 | 6.39 | 1184 | 7.57 | 1235 | 8.76 | 1330 | 11.14 | **1419** | **13.56** | **1503** | **16.05** | **1584** | **18.64** | **1662** | **21.32** | **1736** | **24.06** |
| 15510 | 3000 | 1118 | 5.63 | 1144 | 6.23 | 1196 | 7.48 | 1247 | 8.75 | 1295 | 10.01 | 1387 | 12.58 | **1472** | **15.14** | **1553** | **17.76** | **1631** | **20.48** | **1706** | **23.26** | **1778** | **26.11** |
| 16544 | 3200 | 1189 | 6.74 | 1214 | 7.39 | 1263 | 8.72 | 1310 | 10.05 | 1357 | 11.42 | **1445** | **14.14** | **1527** | **16.86** | **1605** | **19.63** | **1679** | **22.43** | **1752** | **25.36** | | |
| 17578 | 3400 | 1260 | 7.99 | 1284 | 8.69 | 1330 | 10.09 | 1375 | 11.50 | **1419** | **12.93** | **1504** | **15.84** | **1583** | **18.73** | **1658** | **21.62** | **1730** | **24.57** | | | | |
| 18612 | 3600 | 1331 | 9.39 | 1354 | 10.14 | 1398 | 11.62 | **1441** | **13.12** | **1483** | **14.63** | **1564** | **17.68** | **1641** | **20.76** | **1713** | **23.80** | **1783** | **26.90** | | | | |
| 19646 | 3800 | **1403** | **10.97** | **1424** | **11.74** | **1466** | **13.30** | **1507** | **14.88** | **1547** | **16.47** | **1625** | **19.69** | **1699** | **22.91** | **1770** | **26.18** | | | | | | |

**MAXIMUM RPM:** Class I - 1402 Class II - 1799

## VSAC33

**Outlet Area - 6.26 ft$^2$ Wheel Dia. - 33.00 Inches Tip Speed - 8.64 x RPM Max. BHP = 7.64 (RPM/1000)$^3$**

| | | 0.25" | | 0.5" | | 1" | | 1.5" | | 2" | | 3" | | 4" | | 5" | | 6" | | 7" | | 8" | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CFM | OV | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 5008 | 800 | 347 | 0.32 | 414 | 0.54 | 527 | 1.04 | | | | | | | | | | | | | | | | |
| 6260 | 1000 | 400 | 0.48 | 459 | 0.74 | 560 | 1.30 | 647 | 1.93 | | | | | | | | | | | | | | |
| 7512 | 1200 | 456 | 0.69 | 509 | 1.00 | 600 | 1.64 | 681 | 2.34 | 754 | 3.09 | | | | | | | | | | | | |
| 8764 | 1400 | 514 | 0.97 | 562 | 1.33 | 645 | 2.05 | 720 | 2.82 | 789 | 3.64 | 914 | 5.44 | | | | | | | | | | |
| 10016 | 1600 | 574 | 1.32 | 617 | 1.73 | 694 | 2.55 | 764 | 3.40 | 828 | 4.28 | 945 | 6.18 | 1053 | 8.29 | | | | | | | | |
| 11268 | 1800 | 636 | 1.76 | 674 | 2.21 | 746 | 3.14 | 811 | 4.08 | 871 | 5.04 | 983 | 7.09 | 1083 | 9.26 | 1179 | 11.66 | | | | | | |
| 12520 | 2000 | 698 | 2.30 | 733 | 2.80 | 800 | 3.83 | 861 | 4.86 | 917 | 5.89 | 1023 | 8.09 | 1120 | 10.42 | 1209 | 12.86 | **1295** | **15.50** | | | | |
| 13772 | 2200 | 761 | 2.94 | 793 | 3.49 | 855 | 4.62 | 913 | 5.76 | 966 | 6.88 | 1066 | 9.23 | 1159 | 11.71 | 1245 | 14.28 | **1326** | **16.98** | **1404** | **19.83** | **1483** | **22.99** |
| 15024 | 2400 | 824 | 3.70 | 854 | 4.30 | 912 | 5.53 | 966 | 6.76 | 1017 | 8.00 | 1112 | 10.51 | 1200 | 13.11 | **1284** | **15.86** | **1362** | **18.69** | **1436** | **21.61** | **1508** | **24.69** |
| 16276 | 2600 | 888 | 4.60 | 916 | 5.25 | 969 | 6.55 | 1021 | 7.90 | 1070 | 9.25 | 1160 | 11.93 | 1244 | 14.69 | **1324** | **17.56** | **1400** | **20.53** | **1473** | **23.65** | **1541** | **26.77** |
| 17528 | 2800 | 952 | 5.63 | 978 | 6.33 | 1028 | 7.73 | 1077 | 9.18 | 1123 | 10.61 | 1210 | 13.51 | **1290** | **16.41** | **1367** | **19.45** | **1440** | **22.55** | **1511** | **25.80** | **1579** | **29.16** |
| 18780 | 3000 | 1017 | 6.83 | 1041 | 7.56 | 1088 | 9.06 | 1134 | 10.60 | 1178 | 12.13 | 1262 | 15.26 | **1339** | **18.35** | **1412** | **21.50** | **1483** | **24.80** | **1551** | **28.15** | **1617** | **31.64** |
| 20032 | 3200 | 1081 | 8.16 | 1104 | 8.96 | 1149 | 10.57 | 1192 | 12.19 | 1234 | 13.82 | **1314** | **17.12** | **1389** | **20.44** | **1459** | **23.74** | **1527** | **27.17** | **1593** | **30.70** | | |
| 21284 | 3400 | 1146 | 9.69 | 1168 | 10.54 | 1210 | 12.23 | 1251 | 13.95 | **1291** | **15.69** | **1368** | **19.19** | **1440** | **22.70** | **1508** | **26.20** | **1573** | **29.75** | | | | |
| 22536 | 3600 | 1211 | 11.39 | 1231 | 12.27 | 1271 | 14.06 | **1310** | **15.87** | **1349** | **17.74** | **1422** | **21.40** | **1492** | **25.13** | **1558** | **28.84** | **1621** | **32.56** | | | | |
| 23788 | 3800 | **1276** | **13.29** | **1295** | **14.22** | **1333** | **16.10** | **1371** | **18.04** | **1407** | **19.95** | **1478** | **23.86** | **1546** | **27.80** | **1610** | **31.73** | | | | | | |

**MAXIMUM RPM:** Class I - 1275 Class II - 1636

## VSAC36

**Outlet Area - 7.66 ft$^2$ Wheel Dia. - 36.50 Inches Tip Speed - 9.56 x RPM Max. BHP = 14.50 (RPM/1000)$^3$**

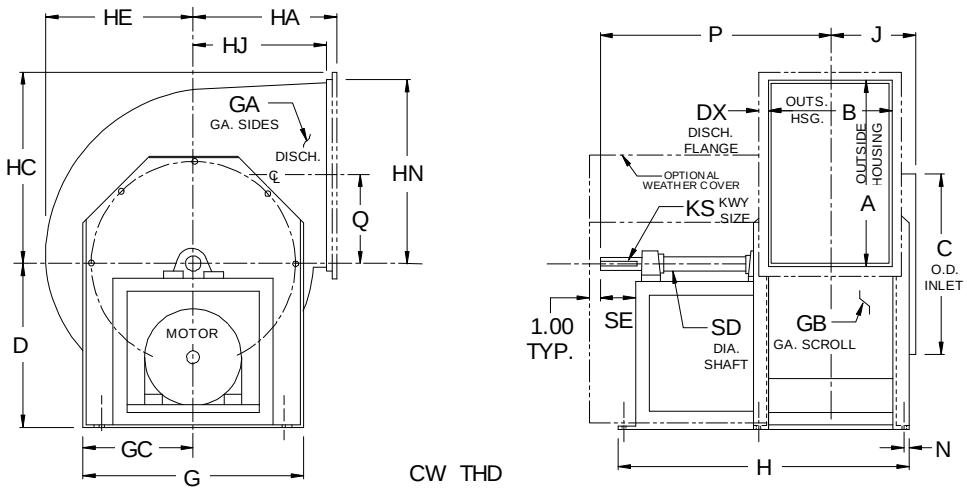
| | | 0.25" | | 0.5" | | 1" | | 1.5" | | 2" | | 3" | | 4" | | 5" | | 6" | | 7" | | 8" | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CFM | OV | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 6128 | 800 | 292 | 0.36 | 353 | 0.62 | 460 | 1.21 | | | | | | | | | | | | | | | | |
| 7660 | 1000 | 335 | 0.53 | 388 | 0.84 | 481 | 1.51 | 565 | 2.26 | | | | | | | | | | | | | | |
| 9192 | 1200 | 383 | 0.78 | 427 | 1.12 | 510 | 1.88 | 586 | 2.71 | 656 | 3.59 | | | | | | | | | | | | |
| 10724 | 1400 | 432 | 1.09 | 471 | 1.48 | 546 | 2.35 | 614 | 3.25 | 678 | 4.20 | 797 | 6.31 | | | | | | | | | | |
| 12256 | 1600 | 482 | 1.48 | 518 | 1.94 | 584 | 2.88 | 647 | 3.88 | 706 | 4.92 | 816 | 7.15 | 920 | 9.66 | | | | | | | | |
| 13788 | 1800 | 534 | 1.98 | 566 | 2.49 | 626 | 3.52 | 684 | 4.62 | 739 | 5.77 | 842 | 8.18 | 937 | 10.71 | 1029 | 13.55 | | | | | | |
| 15320 | 2000 | 586 | 2.59 | 616 | 3.15 | 671 | 4.28 | 724 | 5.48 | 775 | 6.72 | 872 | 9.32 | 962 | 12.05 | 1047 | 14.91 | **1129** | **18.01** | **1211** | **21.48** | | |
| 16852 | 2200 | 639 | 3.32 | 666 | 3.93 | 718 | 5.18 | 766 | 6.45 | 814 | 7.79 | 905 | 10.59 | 990 | 13.49 | 1070 | 16.49 | **1148** | **19.69** | **1223** | **23.07** | **1297** | **26.73** |
| 18384 | 2400 | 692 | 4.18 | 717 | 4.84 | 765 | 6.19 | 811 | 7.58 | 855 | 9.00 | 940 | 11.97 | 1021 | 15.08 | **1098** | **18.29** | **1171** | **21.59** | **1242** | **25.03** | **1311** | **28.65** |
| 19916 | 2600 | 746 | 5.20 | 769 | 5.91 | 814 | 7.37 | 857 | 8.86 | 898 | 10.36 | 978 | 13.52 | 1055 | 16.83 | **1128** | **20.21** | **1198** | **23.69** | **1266** | **27.31** | **1332** | **31.03** |
| 21448 | 2800 | 799 | 6.35 | 822 | 7.15 | 864 | 8.71 | 904 | 10.29 | 942 | 11.87 | 1018 | 15.23 | **1091** | **18.73** | **1161** | **22.32** | **1228** | **25.98** | **1293** | **29.76** | **1356** | **33.64** |
| 22980 | 3000 | 853 | 7.69 | 874 | 8.53 | 914 | 10.21 | 952 | 11.90 | 989 | 13.62 | 1060 | 17.13 | **1129** | **20.80** | **1196** | **24.60** | **1260** | **28.43** | **1323** | **32.43** | **1383** | **36.44** |
| 24512 | 3200 | 908 | 9.23 | 927 | 10.10 | 965 | 11.90 | 1001 | 13.69 | 1036 | 15.51 | **1103** | **19.20** | **1169** | **23.07** | **1233** | **27.06** | **1295** | **31.14** | **1355** | **35.29** | | |
| 26044 | 3400 | 962 | 10.94 | 980 | 11.87 | 1016 | 13.77 | 1051 | 15.70 | **1084** | **17.61** | **1148** | **21.50** | **1210** | **25.52** | **1271** | **29.67** | **1331** | **33.98** | | | | |
| 27576 | 3600 | 1016 | 12.85 | 1034 | 13.86 | 1068 | 15.87 | **1101** | **17.90** | **1133** | **19.94** | **1194** | **24.02** | **1253** | **28.21** | **1311** | **32.54** | **1369** | **37.07** | | | | |
| 29108 | 3800 | 1071 | 15.01 | **1088** | **16.08** | **1120** | **18.18** | **1151** | **20.28** | **1182** | **22.45** | **1240** | **26.71** | **1297** | **31.12** | **1353** | **35.67** | | | | | | |

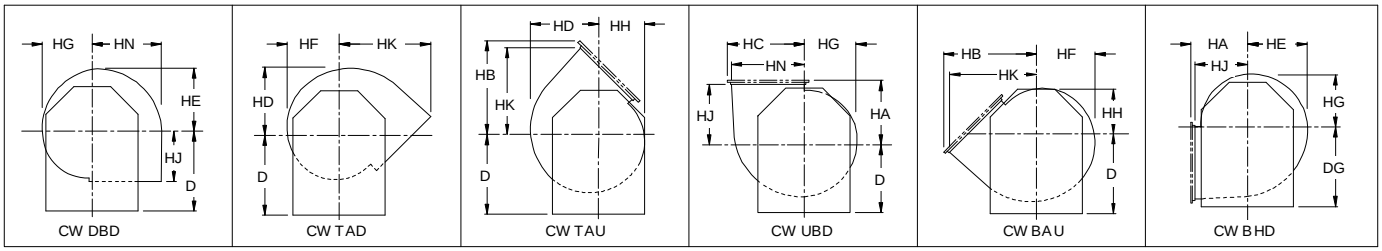
**MAXIMUM RPM:** Class I - 1071 Class II - 1388

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

Class I fans are shown non-shaded.
Class II fans are shown shaded.

# Dimensional Data




**NOTES:**

1. Flanged outlet is optional on sizes 12-20. Flanged outlet is standard on sizes 22-36 (except on TAD & DBD).
2. "CW" Rotation is shown. "CCW" rotation is similar but opposite.
3. Shaft diameter is increased to 1.187 on hi-temperature fans which require shaft coolers.
4. All units are rotatable to all positions (except sizes 30-36 with "D" centerline height are not rotatable to BHD).

| SIZE | A | B | C | D | D | DG | DG | DX | G | GA | GB | GC | H | H | HA | HB | HC | HD | HE | HF |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | CL I | CL II | CL I | CL II | | | | | | CL I | CL II | | | | | | |
| **12** | 13.00 | 9.75 | 13.25 | 14.50 | 17.63 | 14.50 | 17.63 | 1.00 | 16.00 | 14 | 14 | 8.00 | 24.50 | 32.00 | 9.75 | 16.75 | 13.94 | 11.19 | 10.56 | 9.94 |
| **13** | 14.31 | 10.81 | 14.56 | 15.75 | 19.13 | 15.75 | 19.13 | 1.00 | 17.50 | 14 | 14 | 8.75 | 25.63 | 34.81 | 10.75 | 18.38 | 15.25 | 12.31 | 11.63 | 10.94 |
| **15** | 15.88 | 11.94 | 16.19 | 17.75 | 19.38 | 17.75 | 19.38 | 1.00 | 19.00 | 14 | 14 | 9.50 | 28.75 | 36.00 | 11.94 | 20.31 | 16.81 | 13.75 | 12.88 | 12.13 |
| **16** | 17.44 | 13.19 | 17.75 | 19.00 | 19.38 | 19.00 | 19.38 | 1.00 | 20.50 | 14 | 14 | 10.25 | 30.13 | 37.31 | 13.13 | 22.25 | 18.38 | 15.06 | 14.13 | 13.31 |
| **18** | 19.38 | 14.56 | 19.50 | 21.00 | 21.88 | 21.00 | 21.88 | 1.25 | 22.50 | 12 | 14 | 11.25 | 34.38 | 43.44 | 14.50 | 24.81 | 20.56 | 16.69 | 15.69 | 14.75 |
| **20** | 21.19 | 15.94 | 21.38 | 22.75 | 22.75 | 22.75 | 22.75 | 1.25 | 25.00 | 12 | 14 | 12.50 | 35.75 | 44.81 | 15.81 | 27.00 | 22.38 | 18.38 | 17.31 | 16.25 |
| **22** | 23.56 | 17.69 | 23.75 | 25.50 | 25.50 | 25.50 | 25.50 | 1.25 | 27.25 | 12 | 14 | 13.63 | 40.75 | 47.13 | 17.69 | 30.00 | 24.75 | 20.44 | 19.06 | 17.94 |
| **24** | 25.94 | 19.44 | 26.06 | 28.00 | 28.00 | 28.00 | 28.00 | 1.25 | 29.75 | 12 | 14 | 14.88 | 43.50 | 48.81 | 19.50 | 33.00 | 27.13 | 22.38 | 21.00 | 19.75 |
| **27** | 28.63 | 21.38 | 28.50 | 30.50 | 30.50 | 30.50 | 30.50 | 1.50 | 33.00 | 12 | 14 | 16.50 | 47.38 | 53.00 | 21.44 | 36.44 | 30.06 | 24.69 | 23.19 | 21.81 |
| **30** | 31.81 | 23.81 | 31.63 | 27.50 | 27.50 | 34.25 | 34.25 | 1.50 | 36.13 | 10 | 12 | 18.06 | 52.88 | 56.00 | 23.81 | 40.31 | 33.25 | 27.44 | 25.75 | 24.25 |
| **33** | 35.13 | 26.06 | 34.75 | 30.00 | 30.00 | 37.25 | 37.25 | 1.50 | 38.88 | 10 | 12 | 19.44 | 56.13 | 61.75 | 26.25 | 44.44 | 36.56 | 30.13 | 28.38 | 26.69 |
| **36** | 38.75 | 28.88 | 38.50 | 33.50 | 33.50 | 41.00 | 41.00 | 1.50 | 43.75 | 10 | 12 | 21.88 | 64.56 | 64.56 | 29.00 | 48.88 | 40.13 | 33.50 | 31.50 | 29.63 |

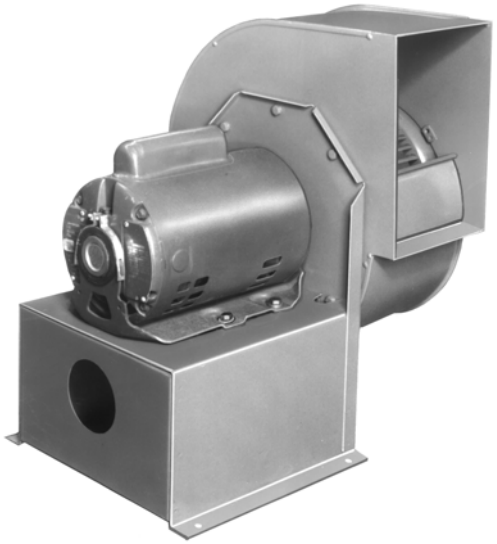
| SIZE | HG | HH | HJ | HK | HN | J | KS | KS | N | P | P | Q | SD | SD | SE | SE | MAX. MTR. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | CL I | CL II | | CL I | CL II | | CL I | CL II | CL I | CL II | CL I | CL II |
| **12** | 9.31 | 8.69 | 9.25 | 15.69 | 12.94 | 7.44 | .25x.13 | .25x.13 | 0.50 | 19.75 | 26.50 | 6.44 | 1.000 | 1.187 | 2.75 | 2.75 | 145T | 184T |
| **13** | 10.25 | 9.56 | 10.25 | 17.31 | 14.25 | 8.00 | .25x.13 | .25x.13 | 0.50 | 20.31 | 29.56 | 7.13 | 1.000 | 1.187 | 2.75 | 3.38 | 145T | 215T |
| **15** | 11.38 | 10.63 | 11.44 | 19.25 | 15.81 | 9.06 | .25x.13 | .25x.13 | 0.50 | 23.13 | 30.13 | 7.88 | 1.000 | 1.187 | 3.25 | 3.38 | 184T | 215T |
| **16** | 12.50 | 11.69 | 12.63 | 21.19 | 17.38 | 9.69 | .25x.13 | .25x.13 | 0.63 | 23.75 | 30.75 | 8.69 | 1.000 | 1.187 | 3.25 | 3.38 | 184T | 215T |
| **18** | 13.81 | 12.88 | 14.00 | 23.56 | 19.31 | 10.88 | .25x.13 | .38x.19 | 0.63 | 27.94 | 36.81 | 9.63 | 1.187 | 1.437 | 3.75 | 4.00 | 215T | 256T |
| **20** | 15.19 | 14.13 | 15.31 | 25.75 | 21.13 | 11.56 | .38x.19 | .38x.19 | 0.63 | 28.63 | 37.50 | 10.56 | 1.437 | 1.437 | 3.75 | 4.00 | 215T | 256T |
| **22** | 16.81 | 15.69 | 17.19 | 28.75 | 23.50 | 12.44 | .38x.19 | .38x.19 | 0.88 | 27.63 | 38.38 | 11.75 | 1.437 | 1.437 | 3.75 | 4.00 | 215T | 256T |
| **24** | 18.50 | 17.25 | 19.00 | 31.75 | 25.88 | 13.31 | .38x.19 | .38x.19 | 0.88 | 29.00 | 39.25 | 12.94 | 1.437 | 1.687 | 3.75 | 4.00 | 215T | 256T |
| **27** | 20.44 | 19.06 | 20.94 | 35.00 | 28.56 | 14.25 | .38x.19 | .38x.19 | 0.88 | 31.69 | 43.13 | 14.25 | 1.437 | 1.687 | 4.00 | 4.63 | 215T | 286T |
| **30** | 22.75 | 21.25 | 23.31 | 38.94 | 31.75 | 15.50 | .50x.25 | .50x.25 | 1.13 | 40.38 | 44.44 | 15.81 | 1.937 | 1.937 | 3.75 | 4.63 | 215T | 286T |
| **33** | 25.00 | 23.31 | 25.75 | 43.00 | 35.06 | 16.63 | .50x.25 | .50x.25 | 1.13 | 42.50 | 49.69 | 17.50 | 1.937 | 2.187 | 3.75 | 5.25 | 256T | 326T |
| **36** | 27.75 | 25.88 | 28.50 | 47.44 | 39.63 | 18.00 | .50x.25 | .63x.31 | 1.13 | 50.56 | 51.06 | 19.25 | 1.937 | 2.437 | 4.75 | 5.25 | 286T | 326T |

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

# Direct Drive Junior Ventilating Sets

### Type VSDDF

Direct drive ventilating sets are ideal in applications where general ventilation or exhaust is required in small areas such as washrooms, restaurant counters, exhaust hoods, etc. Incorporating forward curved blades for maximum capacity, and available with steel, aluminum, or stainless steel construction, they provide optimal performance with minimal physical dimensions. Available in four sizes, direct drive ventilating sets are an economical solution for capacity requirements from 250 to 2100 cfm and static pressures to 1.75".



# Belt Driven Junior Ventilating Sets

### Type VSBCJ, VSFCJ

Belt driven ventilating sets are recommended where capacity and static pressure requirements are such that they cannot be met by direct drive sets, and where some variation in capacity may be required because of ductwork adjustments.

Belt driven ventilating sets are offered with both forward curved and backward inclined, non-overloading wheels. Fan housings are of heavy gauge, continuously welded construction and are available constructed of steel, aluminum, or stainless steel. Housings are convertible to eight standard discharge configurations. Adjustable pitch V-belt drives are used so capacity corrections can be readily made when needed. Specialized design of the support base provides easy access for electrical wiring and adjustment of the drives.

Belt driven ventilating sets are available in 3 sizes with capacities from 260 to 1900 cfm and static pressures to 5".

Accessories include:

- Weather cover
- Inlet and/or outlet screens
- Gravity backdraft dampers

American Coolair Corporation certifies that the type VSBCJ fans shown on page 22 are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings program.

For sound performance see Eng. Bulletin 2002-10.

Type VSBCJ is available for listing under UL705, Canadian UL705, and UL762. Check with your local representative.

# VSDDF Direct Drive Ventilating Set

| MODEL NO. | MOTOR HP | RPM | 0.125" SP | | 0.25" SP | | 0.375" SP | | 0.50" SP | | 0.625" SP | | 0.75" SP | | 1" SP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | CFM | OV | CFM | OV | CFM | OV | CFM | OV | CFM | OV | CFM | OV | CFM | OV |
| VSDDF6F11 | 1/6 | 1150 | 324 | 1466 | 254 | 1149 | - | - | - | - | - | - | - | - | - | - |
| VSDDF6F17 | 1/6 | 1750 | 545 | 2466 | 506 | 2290 | 464 | 2100 | 421 | 1905 | 362 | 1638 | 292 | 1321 | - | - |
| VSDDF7F11 | 1/6 | 1150 | 668 | 2264 | 586 | 1986 | 516 | 1749 | 447 | 1515 | - | - | - | - | - | - |
| VSDDF7H17 | 1/3 | 1750 | - | - | - | - | - | - | - | - | 872 | 2963 | 828 | 2807 | 741 | 2512 |
| VSDDF7J17 | 1/2 | 1750 | 1085 | 3678 | 1033 | 3502 | 978 | 3315 | 923 | 3129 | 874 | 2963 | 828 | 2807 | 741 | 2512 |
| VSDDF9H11 | 1/3 | 1150 | - | - | 1216 | 2916 | 1129 | 2707 | 1042 | 2499 | 946 | 2269 | 802 | 1923 | - | - |
| VSDDF9J11 | 1/2 | 1150 | 1300 | 3118 | 1216 | 2916 | 1129 | 2707 | 1042 | 2499 | 946 | 2269 | 802 | 1923 | - | - |
| VSDDF9M17 | 1 1/2 | 1750 | 2048 | 4911 | 1994 | 4782 | 1940 | 4652 | 1886 | 4523 | 1830 | 4388 | 1772 | 4249 | 1657 | 3974 |
| VSDDF10L11 | 1 | 1150 | 2127 | 3648 | 2036 | 3492 | 1945 | 3336 | 1855 | 3182 | 1766 | 3029 | 1681 | 2883 | 1484 | 2545 |

| MODEL NO. | MOTOR HP | RPM | 1" SP | | 1.25"SP | | 1.5" SP | | 1.75" SP | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | CFM | OV | CFM | OV | CFM | OV | CFM | OV |
| VSDDF9L17 | 1 | 1750 | - | - | 1543 | 3700 | 1408 | 3376 | 1205 | 2890 |
| VSDDF9M17 | 1 1/2 | 1750 | 1657 | 3974 | 1543 | 3700 | 1408 | 3376 | 1205 | 2890 |

Model VSDDF is not licensed to bear the AMCA Seal

# VSBCJ9 Belt Driven SWSI Junior Ventilating Set

**Wheel Dia. - 10.500"  Tip Speed (FPM): 2.75 x RPM  Outlet Area - 0.653 ft$^2$**

| CFM | OV | 0.125" SP | | 0.25" SP | | 0.50" SP | | 0.75" SP | | 1" SP | | 1.5" SP | | 2" SP | | 3" SP | | 4" SP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 261 | 400 | 829 | 0.01 | 970 | 0.02 | 1190 | 0.04 | | | | | | | | | | | | |
| 327 | 500 | 964 | 0.02 | 1088 | 0.03 | 1305 | 0.05 | 1470 | 0.07 | 1626 | 0.09 | | | | | | | | |
| 392 | 600 | 1095 | 0.03 | 1220 | 0.04 | 1409 | 0.06 | 1584 | 0.09 | 1722 | 0.12 | | | | | | | | |
| 457 | 700 | 1232 | 0.04 | 1352 | 0.05 | 1527 | 0.08 | 1688 | 0.11 | 1836 | 0.14 | 2069 | 0.20 | | | | | | |
| 522 | 800 | 1374 | 0.05 | 1483 | 0.07 | 1659 | 0.10 | 1799 | 0.13 | 1940 | 0.17 | 2184 | 0.24 | 2380 | 0.30 | | | | |
| 588 | 900 | 1521 | 0.07 | 1618 | 0.09 | 1794 | 0.13 | 1927 | 0.16 | 2051 | 0.20 | 2295 | 0.28 | 2495 | 0.35 | 2840 | 0.50 | | |
| 653 | 1000 | 1668 | 0.10 | 1756 | 0.11 | 1926 | 0.16 | 2059 | 0.20 | 2173 | 0.23 | 2399 | 0.32 | 2608 | 0.41 | 2938 | 0.57 | 3251 | 0.75 |
| 718 | 1100 | 1817 | 0.12 | 1898 | 0.14 | 2056 | 0.19 | 2193 | 0.23 | 2304 | 0.28 | 2508 | 0.36 | 2712 | 0.46 | 3052 | 0.65 | 3334 | 0.82 |
| 784 | 1200 | 1970 | 0.16 | 2044 | 0.18 | 2190 | 0.22 | 2327 | 0.28 | 2440 | 0.32 | 2631 | 0.42 | 2819 | 0.52 | 3168 | 0.73 | 3444 | 0.92 |
| 849 | 1300 | 2121 | 0.19 | 2190 | 0.22 | 2325 | 0.27 | 2457 | 0.32 | 2573 | 0.38 | 2760 | 0.48 | 2932 | 0.58 | 3274 | 0.81 | 3560 | 1.03 |
| 914 | 1400 | 2274 | 0.24 | 2338 | 0.26 | 2463 | 0.31 | 2588 | 0.37 | 2705 | 0.43 | 2893 | 0.54 | 3055 | 0.65 | 3377 | 0.89 | 3673 | 1.14 |
| 980 | 1500 | 2429 | 0.29 | 2489 | 0.32 | 2606 | 0.37 | 2723 | 0.43 | 2837 | 0.49 | 3029 | 0.62 | 3186 | 0.73 | 3485 | 0.98 | | |
| 1045 | 1600 | 2582 | 0.35 | 2639 | 0.38 | 2749 | 0.43 | 2858 | 0.49 | 2968 | 0.56 | 3162 | 0.70 | 3319 | 0.82 | 3600 | 1.07 | | |
| 1110 | 1700 | 2736 | 0.41 | 2789 | 0.44 | 2894 | 0.50 | 2996 | 0.57 | 3100 | 0.64 | 3294 | 0.78 | 3453 | 0.92 | | | | |
| 1175 | 1800 | 2890 | 0.49 | 2940 | 0.52 | 3040 | 0.58 | 3137 | 0.65 | 3234 | 0.72 | 3424 | 0.87 | 3587 | 1.02 | | | | |
| 1241 | 1900 | 3046 | 0.57 | 3094 | 0.60 | 3189 | 0.67 | 3282 | 0.74 | 3373 | 0.81 | 3556 | 0.97 | | | | | | |

# VSBCJ10 Belt Driven SWSI Junior Ventilating Set

**Wheel Dia. - 10.500"  Tip Speed (FPM): 2.75 x RPM  Outlet Area - 0.653ft$^2$**

| CFM | OV | 0.25" SP | | 0.50" SP | | 0.75" SP | | 1" SP | | 1.5" SP | | 2" SP | | 3" SP | | 4" SP | | 5" SP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 327 | 500 | 901 | 0.02 | 1151 | 0.04 | 1360 | 0.07 | | | | | | | | | | | | |
| 392 | 600 | 980 | 0.03 | 1203 | 0.05 | 1403 | 0.08 | 1579 | 0.11 | | | | | | | | | | |
| 457 | 700 | 1063 | 0.04 | 1267 | 0.06 | 1453 | 0.09 | 1623 | 0.12 | 1920 | 0.19 | | | | | | | | |
| 522 | 799 | 1149 | 0.05 | 1346 | 0.08 | 1512 | 0.10 | 1674 | 0.14 | 1961 | 0.21 | 2214 | 0.29 | | | | | | |
| 588 | 900 | 1239 | 0.06 | 1429 | 0.09 | 1585 | 0.12 | 1732 | 0.15 | 2009 | 0.24 | 2255 | 0.32 | | | | | | |
| 653 | 1000 | 1330 | 0.07 | 1512 | 0.11 | 1665 | 0.14 | 1800 | 0.18 | 2061 | 0.26 | 2300 | 0.35 | 2720 | 0.55 | | | | |
| 784 | 1200 | 1522 | 0.11 | 1686 | 0.14 | 1831 | 0.19 | 1961 | 0.23 | 2187 | 0.32 | 2405 | 0.41 | 2806 | 0.63 | 3158 | 0.87 | 3477 | 1.12 |
| 914 | 1400 | 1721 | 0.15 | 1868 | 0.20 | 2003 | 0.24 | 2126 | 0.30 | 2343 | 0.40 | 2535 | 0.49 | 2907 | 0.72 | 3246 | 0.98 | 3555 | 1.25 |
| 1045 | 1600 | 1927 | 0.21 | 2058 | 0.26 | 2183 | 0.31 | 2298 | 0.37 | 2509 | 0.49 | 2693 | 0.60 | 3025 | 0.83 | 3348 | 1.10 | 3647 | 1.40 |
| 1175 | 1799 | 2135 | 0.29 | 2253 | 0.34 | 2367 | 0.40 | 2476 | 0.45 | 2676 | 0.59 | 2857 | 0.72 | 3169 | 0.97 | 3462 | 1.24 | | |
| 1306 | 2000 | 2347 | 0.38 | 2455 | 0.44 | 2559 | 0.50 | 2661 | 0.57 | 2850 | 0.70 | 3024 | 0.85 | 3331 | 1.14 | 3600 | 1.41 | | |
| 1437 | 2200 | 2562 | 0.49 | 2660 | 0.56 | 2756 | 0.63 | 2850 | 0.70 | 3030 | 0.83 | 3196 | 0.99 | 3496 | 1.32 | | | | |
| 1567 | 2400 | 2776 | 0.62 | 2867 | 0.70 | 2956 | 0.77 | 3043 | 0.85 | 3213 | 1.00 | 3371 | 1.15 | 3662 | 1.51 | | | | |
| 1698 | 2600 | 2994 | 0.77 | 3078 | 0.86 | 3160 | 0.94 | 3241 | 1.02 | 3400 | 1.18 | 3553 | 1.34 | | | | | | |
| 1828 | 2800 | 3210 | 0.95 | 3289 | 1.04 | 3366 | 1.13 | 3442 | 1.22 | 3591 | 1.39 | | | | | | | | |
| 1959 | 3000 | 3429 | 1.15 | 3503 | 1.25 | 3575 | 1.35 | 3647 | 1.44 | | | | | | | | | | |

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

# Performance Data

## VSFCJ7 Belt Driven Junior Ventilating Set

**Wheel Dia. - 7.688” Tip Speed (FPM): 2.012 x RPM Outlet Area - 0.325 ft$^2$**

| | | 0.125" SP | | 0.25" SP | | 0.375" SP | | 0.50" SP | | 0.625" SP | | 0.75" SP | | 1" SP | | 1.25" SP | | 1.5" SP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CFM | OV | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 260 | 800 | 632 | 0.02 | 832 | 0.03 | 996 | 0.05 | | | | | | | | | | | | |
| 292 | 900 | 659 | 0.02 | 847 | 0.04 | 1008 | 0.05 | 1148 | 0.07 | 1273 | 0.09 | | | | | | | | |
| 325 | 1000 | 691 | 0.03 | 866 | 0.04 | 1022 | 0.06 | 1159 | 0.08 | 1283 | 0.10 | 1396 | 0.12 | | | | | | |
| 357 | 1100 | 728 | 0.03 | 887 | 0.05 | 1037 | 0.06 | 1172 | 0.08 | 1293 | 0.11 | 1405 | 0.13 | | | | | | |
| 390 | 1200 | 769 | 0.04 | 912 | 0.05 | 1056 | 0.07 | 1187 | 0.09 | 1306 | 0.12 | 1416 | 0.14 | 1616 | 0.19 | | | | |
| 422 | 1300 | 812 | 0.05 | 940 | 0.06 | 1075 | 0.08 | 1203 | 0.10 | 1320 | 0.13 | 1428 | 0.15 | 1626 | 0.20 | 1803 | 0.25 | | |
| 455 | 1400 | 858 | 0.05 | 972 | 0.07 | 1099 | 0.09 | 1222 | 0.11 | 1336 | 0.14 | 1443 | 0.16 | 1637 | 0.22 | 1812 | 0.27 | 1973 | 0.33 |
| 487 | 1500 | 905 | 0.07 | 1008 | 0.08 | 1125 | 0.10 | 1242 | 0.13 | 1354 | 0.15 | 1458 | 0.18 | 1649 | 0.23 | 1823 | 0.29 | 1982 | 0.35 |
| 520 | 1600 | 954 | 0.08 | 1048 | 0.09 | 1154 | 0.11 | 1265 | 0.14 | 1373 | 0.16 | 1475 | 0.19 | 1663 | 0.25 | 1834 | 0.31 | 1992 | 0.37 |
| 552 | 1700 | 1003 | 0.09 | 1088 | 0.11 | 1185 | 0.13 | 1290 | 0.15 | 1393 | 0.18 | 1493 | 0.21 | 1678 | 0.26 | 1847 | 0.33 | 2003 | 0.39 |
| 585 | 1800 | 1054 | 0.11 | 1132 | 0.12 | 1222 | 0.14 | 1318 | 0.17 | 1417 | 0.19 | 1513 | 0.22 | 1695 | 0.28 | 1861 | 0.35 | 2015 | 0.42 |
| 617 | 1900 | 1104 | 0.12 | 1176 | 0.14 | 1259 | 0.16 | 1348 | 0.18 | 1443 | 0.21 | 1535 | 0.24 | 1713 | 0.30 | 1876 | 0.37 | 2029 | 0.44 |
| 650 | 2000 | 1156 | 0.14 | 1223 | 0.16 | 1299 | 0.18 | 1382 | 0.20 | 1470 | 0.23 | 1559 | 0.26 | 1732 | 0.33 | 1893 | 0.39 | 2043 | 0.47 |
| 682 | 2100 | 1206 | 0.16 | 1269 | 0.18 | 1340 | 0.20 | 1418 | 0.23 | 1499 | 0.25 | 1585 | 0.28 | 1751 | 0.35 | 1910 | 0.42 | 2058 | 0.49 |
| 715 | 2200 | 1259 | 0.19 | 1319 | 0.20 | 1384 | 0.22 | 1457 | 0.25 | 1533 | 0.28 | 1613 | 0.31 | 1774 | 0.37 | 1929 | 0.45 | 2075 | 0.52 |
| 747 | 2300 | 1310 | 0.21 | 1367 | 0.23 | 1428 | 0.25 | 1496 | 0.27 | 1568 | 0.30 | 1642 | 0.33 | 1798 | 0.40 | 1948 | 0.47 | 2093 | 0.55 |
| 780 | 2400 | 1364 | 0.24 | 1417 | 0.26 | 1474 | 0.28 | 1538 | 0.30 | 1606 | 0.33 | 1675 | 0.36 | 1824 | 0.43 | 1970 | 0.50 | 2112 | 0.58 |
| 812 | 2500 | 1415 | 0.27 | 1466 | 0.29 | 1521 | 0.31 | 1580 | 0.33 | 1644 | 0.36 | 1710 | 0.39 | 1851 | 0.46 | 1992 | 0.53 | 2131 | 0.62 |

## VSFCJ9 Belt Driven Junior Ventilating Set

**Wheel Dia. - 9.188” Tip Speed (FPM): 2.405 x RPM Outlet Area - 0.451 ft$^2$**

| | | 0.125" SP | | 0.25" SP | | 0.375" SP | | 0.50" SP | | 0.625" SP | | 0.75" SP | | 1" SP | | 1.25" SP | | 1.5" SP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CFM | OV | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 361 | 800 | 495 | 0.02 | 665 | 0.04 | 804 | 0.06 | 924 | 0.08 | 1032 | 0.10 | 1132 | 0.12 | | | | | | |
| 406 | 900 | 511 | 0.03 | 673 | 0.04 | 809 | 0.06 | 927 | 0.08 | 1033 | 0.11 | 1130 | 0.13 | 1308 | 0.18 | | | | |
| 451 | 1000 | 531 | 0.03 | 683 | 0.05 | 816 | 0.07 | 932 | 0.09 | 1036 | 0.12 | 1132 | 0.14 | 1305 | 0.20 | | | | |
| 496 | 1100 | 554 | 0.04 | 695 | 0.06 | 824 | 0.08 | 938 | 0.10 | 1041 | 0.13 | 1135 | 0.15 | 1306 | 0.21 | 1460 | 0.27 | 1603 | 0.34 |
| 541 | 1200 | 579 | 0.04 | 710 | 0.06 | 834 | 0.09 | 946 | 0.12 | 1047 | 0.14 | 1140 | 0.17 | 1308 | 0.23 | 1459 | 0.29 | 1599 | 0.35 |
| 586 | 1300 | 607 | 0.05 | 728 | 0.07 | 845 | 0.10 | 954 | 0.13 | 1054 | 0.15 | 1146 | 0.18 | 1312 | 0.24 | 1461 | 0.31 | 1599 | 0.38 |
| 631 | 1400 | 636 | 0.06 | 748 | 0.08 | 859 | 0.11 | 964 | 0.14 | 1062 | 0.17 | 1153 | 0.20 | 1317 | 0.26 | 1465 | 0.33 | 1600 | 0.40 |
| 676 | 1500 | 666 | 0.07 | 770 | 0.10 | 875 | 0.12 | 976 | 0.15 | 1071 | 0.18 | 1161 | 0.22 | 1323 | 0.28 | 1469 | 0.35 | 1603 | 0.42 |
| 722 | 1600 | 698 | 0.09 | 795 | 0.11 | 893 | 0.14 | 990 | 0.17 | 1082 | 0.20 | 1170 | 0.23 | 1330 | 0.30 | 1475 | 0.38 | 1608 | 0.45 |
| 767 | 1700 | 730 | 0.10 | 820 | 0.12 | 913 | 0.15 | 1005 | 0.18 | 1094 | 0.22 | 1180 | 0.25 | 1338 | 0.33 | 1481 | 0.40 | 1612 | 0.48 |
| 812 | 1800 | 763 | 0.12 | 848 | 0.14 | 935 | 0.17 | 1022 | 0.20 | 1108 | 0.23 | 1191 | 0.27 | 1346 | 0.35 | 1487 | 0.43 | 1618 | 0.51 |
| 857 | 1900 | 796 | 0.13 | 876 | 0.16 | 958 | 0.19 | 1041 | 0.22 | 1124 | 0.26 | 1204 | 0.29 | 1356 | 0.37 | 1495 | 0.46 | 1624 | 0.54 |
| 902 | 2000 | 830 | 0.15 | 905 | 0.18 | 983 | 0.21 | 1062 | 0.24 | 1141 | 0.28 | 1218 | 0.32 | 1366 | 0.40 | 1504 | 0.48 | 1632 | 0.57 |
| 947 | 2100 | 864 | 0.17 | 936 | 0.20 | 1009 | 0.23 | 1085 | 0.26 | 1159 | 0.30 | 1234 | 0.34 | 1378 | 0.42 | 1513 | 0.51 | 1640 | 0.61 |
| 992 | 2200 | 899 | 0.20 | 967 | 0.22 | 1037 | 0.25 | 1108 | 0.29 | 1180 | 0.33 | 1251 | 0.37 | 1391 | 0.45 | 1523 | 0.54 | 1648 | 0.64 |
| 1037 | 2300 | 934 | 0.22 | 998 | 0.25 | 1065 | 0.28 | 1133 | 0.32 | 1202 | 0.36 | 1270 | 0.40 | 1405 | 0.48 | 1534 | 0.58 | 1658 | 0.68 |
| 1082 | 2400 | 969 | 0.25 | 1030 | 0.28 | 1094 | 0.31 | 1159 | 0.35 | 1225 | 0.39 | 1290 | 0.43 | 1421 | 0.52 | 1547 | 0.61 | 1668 | 0.71 |
| 1127 | 2500 | 1004 | 0.28 | 1063 | 0.31 | 1124 | 0.34 | 1186 | 0.38 | 1249 | 0.42 | 1312 | 0.46 | 1437 | 0.55 | 1561 | 0.65 | 1679 | 0.75 |

## VSFCJ10 Belt Driven Junior Ventilating Set

**Wheel Dia. - 10.625” Tip Speed (FPM): 2.782 x RPM Outlet Area - 0.594 ft$^2$**

| | | 0.125" SP | | 0.25" SP | | 0.375" SP | | 0.50" SP | | 0.625" SP | | 0.75" SP | | 1" SP | | 1.25" SP | | 1.5" SP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CFM | OV | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 475 | 800 | 404 | 0.04 | 519 | 0.06 | 617 | 0.08 | | | | | | | | | | | | |
| 535 | 900 | 425 | 0.04 | 533 | 0.07 | 627 | 0.10 | 710 | 0.12 | | | | | | | | | | |
| 594 | 1000 | 447 | 0.05 | 548 | 0.08 | 638 | 0.11 | 719 | 0.14 | 794 | 0.17 | 863 | 0.20 | | | | | | |
| 653 | 1100 | 472 | 0.07 | 566 | 0.10 | 652 | 0.13 | 730 | 0.16 | 802 | 0.19 | 870 | 0.23 | | | | | | |
| 713 | 1200 | 498 | 0.08 | 585 | 0.11 | 667 | 0.14 | 743 | 0.18 | 813 | 0.22 | 878 | 0.25 | 999 | 0.33 | | | | |
| 772 | 1300 | 524 | 0.10 | 606 | 0.13 | 684 | 0.16 | 757 | 0.20 | 825 | 0.24 | 889 | 0.28 | 1006 | 0.36 | 1115 | 0.44 | | |
| 832 | 1400 | 551 | 0.12 | 629 | 0.15 | 703 | 0.19 | 773 | 0.23 | 839 | 0.27 | 901 | 0.31 | 1016 | 0.39 | 1121 | 0.48 | 1220 | 0.57 |
| 891 | 1500 | 579 | 0.14 | 653 | 0.17 | 723 | 0.21 | 790 | 0.25 | 854 | 0.30 | 914 | 0.34 | 1026 | 0.43 | 1129 | 0.52 | 1226 | 0.62 |
| 950 | 1600 | 607 | 0.16 | 678 | 0.20 | 744 | 0.24 | 808 | 0.28 | 870 | 0.33 | 928 | 0.37 | 1038 | 0.47 | 1139 | 0.56 | 1233 | 0.66 |
| 1010 | 1700 | 636 | 0.19 | 704 | 0.23 | 767 | 0.27 | 828 | 0.32 | 887 | 0.36 | 944 | 0.41 | 1051 | 0.51 | 1150 | 0.61 | 1243 | 0.71 |
| 1069 | 1800 | 665 | 0.22 | 731 | 0.26 | 791 | 0.31 | 849 | 0.35 | 906 | 0.40 | 961 | 0.45 | 1065 | 0.55 | 1162 | 0.66 | 1253 | 0.77 |
| 1129 | 1900 | 695 | 0.25 | 758 | 0.30 | 816 | 0.34 | 872 | 0.39 | 926 | 0.44 | 979 | 0.49 | 1080 | 0.60 | 1175 | 0.71 | 1264 | 0.83 |
| 1188 | 2000 | 725 | 0.29 | 785 | 0.34 | 841 | 0.39 | 895 | 0.44 | 947 | 0.49 | 998 | 0.54 | 1096 | 0.65 | 1189 | 0.77 | 1277 | 0.89 |
| 1247 | 2100 | 754 | 0.33 | 813 | 0.38 | 867 | 0.43 | 919 | 0.48 | 969 | 0.54 | 1018 | 0.59 | 1113 | 0.71 | 1204 | 0.83 | 1290 | 0.95 |
| 1307 | 2200 | 785 | 0.37 | 841 | 0.43 | 894 | 0.48 | 944 | 0.53 | 992 | 0.59 | 1039 | 0.64 | 1132 | 0.77 | 1220 | 0.89 | 1304 | 1.02 |
| 1366 | 2300 | 815 | 0.42 | 870 | 0.48 | 920 | 0.53 | 969 | 0.59 | 1016 | 0.65 | 1061 | 0.70 | 1150 | 0.82 | 1237 | 0.96 | 1319 | 1.09 |
| 1426 | 2400 | 846 | 0.47 | 899 | 0.53 | 948 | 0.59 | 995 | 0.65 | 1040 | 0.71 | 1084 | 0.77 | 1170 | 0.89 | 1254 | 1.02 | 1335 | 1.16 |
| 1485 | 2500 | 876 | 0.53 | 928 | 0.59 | 975 | 0.65 | 1021 | 0.71 | 1065 | 0.77 | 1108 | 0.83 | 1191 | 0.96 | 1273 | 1.10 | 1351 | 1.24 |

# Typical Specification

Fans shall be Type VSBC Backward Inclined or Type VSFC Forward Curved Ventilating Sets

**PERFORMANCE-** Fans shall be tested in accordance with AMCA 211 and AMCA 311 test codes for air moving devices and shall be guaranteed by the manufacturer to deliver rated published performance levels. VSBC fans shall be licensed to bear the AMCA certified ratings seal for both sound and air. VSFC fans shall be licensed to bear the AMCA certified ratings seal for air.

**HOUSINGS-** Fan housings shall be heavy gauge, continuously welded construction. Housings with lock seams or partially welded construction are not acceptable. Housings shall be suitably braced to prevent vibration or pulsation. Housings shall have tapered spun, aerodynamically designed inlet cones or shrouds providing stable flow and high rigidity. Housings shall be of the rotatable design, convertible to eight standard discharge configurations.

**WHEELS-** VSBC backward inclined wheels shall be single thickness plate type designed for maximum efficiency and quiet operation and shall be of the non-overloading type. Class I wheels, sizes 12 through 27, shall be constructed of aluminum with the blades riveted and welded to the spun wheel cone and backplate. Class I wheels, sizes 30 through 36, and all Class II wheels shall be constructed of heavy gauge steel with welded (not riveted) blades.

VSFC forward curved wheels shall be constructed of heavy gauge steel and solidly riveted to a steel shroud and backplate.

All wheels shall be statically and dynamically balanced.

**SHAFT-** Shafts shall be AISI 1040 or 1045 hot rolled steel, accurately turned, ground, polished, and ring gauged for accuracy. Shafts shall be sized for the first critical speed of at least 1.43 times the maximum speed.

**BEARINGS-** Bearings shall be heavy duty, grease lubricated, anti-friction ball, self-aligning, pillow block type and selected for a minimum average bearing life (AFBMA L-50) in excess of 200,000 hours at the maximum fan RPM.

**DRIVE-** Motor sheaves shall be cast iron, and supplied as either variable pitch or fixed pitch. Drives and belts shall be rated for a minimum of 120% of the required HP.

**FINISH AND COATING-** The entire fan assembly, excluding the shaft, shall be thoroughly degreased and deburred before application of a rust-preventative primer. After the fan is completely assembled, a finish coat of paint shall be applied to the entire assembly. The fan shaft shall be coated with a petroleum-based rust protectant. Aluminum components shall be unpainted.

**ACCESSORIES-** When specified, accessories such as belt guards, weather covers, access doors, outlet shutters, inlet screens, etc., shall be provided by American Coolair Corporation to maintain one source responsibility.

**UL705 *(OPTIONAL)*-** VSBC fans shall be listed under UL 705 for power ventilators. VSBC fans shall include a UL listed motor, V-belt drive, special weather cover with additional cooling louvers, and UL705 label. Disconnect switches or other devices (not including motor) shall be field mounted and wired in accordance with all local and national codes.

**UL762 (*OPTIONAL)*-** VSBC fans shall be listed under UL 762 for power ventilators used in restaurant exhaust service (grease laden air). VSBC fans shall include a UL listed motor, V-belt drive, special weather cover with additional cooling louvers, bolted access door, drain connection, wheel backplate fins, and UL label. VSBC fans shall be upblast or top angular up discharge and shall have a discharge height of at least 40" above the roof line. They are to be installed in accordance with NFBA 96. Disconnect switches or other devices (not including motor) shall be field mounted and wired in accordance with all local and national codes.

### Limited Warranty

In the sale of its products, American Coolair Corporation agrees to correct, by repairs or replacement, any defects in workmanship or material that develop under proper and normal use during the period of one year from date of shipment from factory. Any product or part proving, upon American Coolair's examination, to be defective during limited warranty period will be repaired or replaced, at American Coolair's option, f.o.b. factory, at no charge.

Deterioration or wear caused by chemicals, abrasive action or excessive heat shall not constitute defect.

Motors are guaranteed only to the extent of manufacturer's warranty.

American Coolair's limited warranty does not apply to any of its products or parts that have been subject to accidental damage, misuse by the user, unauthorized modifications, improper installation or electrical wiring, or lack of proper lubrication or other service requirements established by American Coolair.

Repairs or replacements provided under the above terms shall constitute fulfillment of all American Coolair's obligations with respect to limited warranty.

THE LIMITED WARRANTY STATED HEREIN IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS, STATUTORY OR IMPLIED, INCLUDING WITHOUT LIMITATION THAT OF MERCHANTABILTY AND FITNESS.

NO LIABILITY FOR REINSTALLATION COST OR FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES OF ANY NATURE IS ASSUMED OR SHALL BE IMPOSED UPON AMERICAN COOLAIR.

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