Bulletin 7620 - 4
December 1997

# Series 7600
# Centrifugal BI Fans

## Design 7620 • Class I, II, & III

NORTHERN BLOWER®

# Series 7600
# Centrifugal BI Fans

The Design 7620 BI fan is a quiet, highly efficient, and stable operating fan suited for a broad range of industrial and commercial applications.

**Industrial supply and exhaust:**
Fume Exhaust
Light Dust Collection
Spray Booth Exhaust
Pulp and Paper Machines
Heat Applications
Special Stainless Steel and Aluminum Construction
Light Moisture Applications

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**Housing & Framing**
Rugged heavy gauge all welded steel housings with substantial framing sections for maximum rigidity.

**BI Wheel**
Heavy gauge, single thickness, backward inclined blades.

**Bearings**
Heavy duty precision ball or roller bearings sized for generous B-10 life.

**Shafts**
Turned ground and polished or fully machined to close dimensional tolerance.

**Balancing**
Wheels are dynamically balanced to ANSI S2.19-1989 specifications for smooth operation.

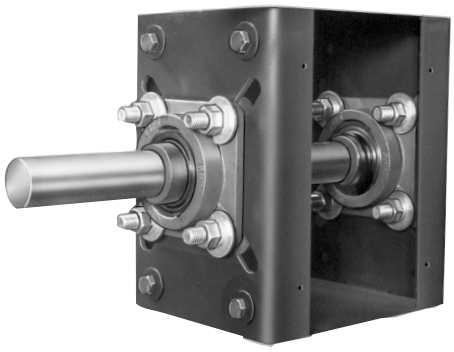
## Shafts and Bearings

**Shafts**

Selected to have suitable strength and operated well below the first critical speed for each maximum class condition.

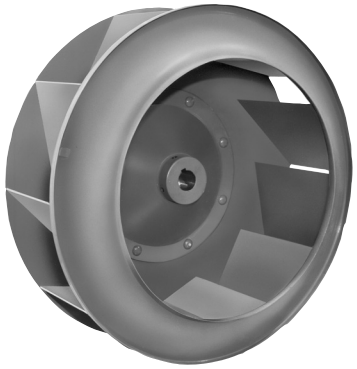
**Bearings**

Antifriction, grease lubricated, self aligning ball or roller types, solid or split housing, manufactured to internationally adopted standards by companies having worldwide acceptance and support services. Bearings are selected for continuous belt driven operation with a generous bearing life throughout each full class range.



## Design 7620 Centrifugal BI Wheel

The Northern Blower BI wheel is designed for high operating efficiency. The blades are formed from heavy gauge single thickness sheets. Continuously welded steel construction is standard. Available from 12 1/4" to 54 1/4" diameters.



## Classes of Construction

| SISW Arr. | Fan Size Range | | | |
|---|---|---|---|---|
| | 4 Position Universal Discharge | | 4 Position Fixed Discharge | |
| | Class I | Class II | Class II | Class III |
| 1 | 1225 - 5425 | 1225 - 4450 | 4900 - 5425 | 2450 - 5425 |
| 9 | 1225 - 5425 | 1225 - 4450 | 4900 - 5425 | 2450 - 5425 |

## Capacities

400 CFM to 85,000 CFM

## Pressures

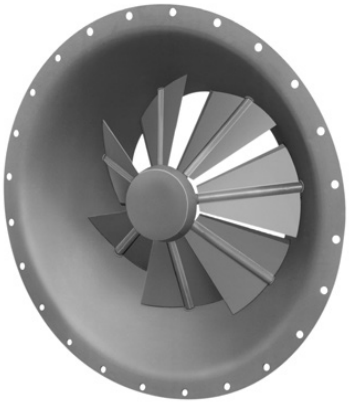
Class I to 7" S.P. (Size 1225 - 5425)
Class II to 12" S.P. (Size 1225 - 5425)
Class III to 19" S.P. (Size 2450 - 5425)

## Temperatures

Operating Temperatures to 800°F
See Table 2, Page 6

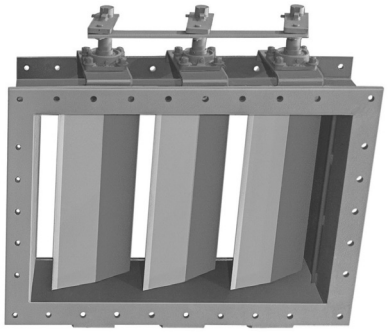
## Variable Inlet Vanes

Variable Inlet Vanes provide accurate volume control with minimal reduction in performance efficiency. Fan performance remains stable through fully open to fully closed positions. Available for both manual and automatic operation to temperatures of 300° F. Special design available for temperatures to 650° F.



## Outlet Damper

Outlet Dampers are the least expensive air volume control device but are less efficient than Variable Inlet Vanes or Inlet Box with Inlet Damper. Northern Blower Outlet Dampers have punched flanges on both ends to allow for convenient fan and duct connections. Both parallel blade and opposed blade designs are available for operating temperatures to 650° F.



## Shaft and Bearing Guard

Encloses the shaft and bearings from the fan drive side to just beyond the outboard fan bearing. Guard includes accessible grease fittings for both bearings.

## Raised Access Door

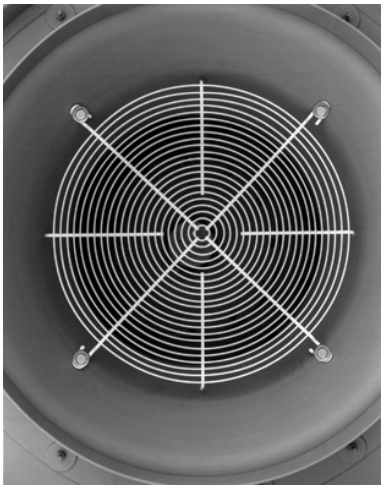
Access door raised 6" beyond scroll surface to provide room for insulation on exterior of fan housing. Insulated door plug surface is flush with inside of housing scroll.

## Flush Access Door

Access door mounted flush to the fan scroll and secured with bolted clips. Quick release handle system also available.

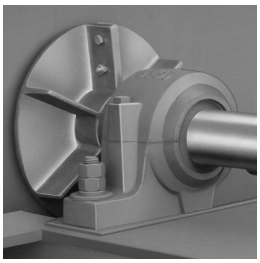
## Inlet Screen

Steel screen mounted to the inlet cone.



## Cooling Wheel

Split aluminum wheel mounted between the inboard bearing and the fan housing. Protects the inboard bearing from shaft conveyed heat and housing radiated heat. Supplied with protective guard as standard. Required for high temperature application; see Table 2 on Page 6.



## Shaft Seal

Used to reduce leakage through the shaft hole in the housing. Seal material aluminum, brass, or Compressed Non-Asbestos Gasket Sheet, depending on fan application.

## Belt Guard

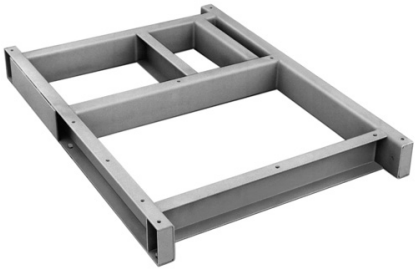
Enclosed on all sides for safe operation and vented to prevent overheating. Tachometer holes, hinged cover, and safety colour coatings also available.

## Flanged Outlet/ Flanged Inlet

Punched flanges to facilitate the bolting of duct connections to the fan inlet and outlet. Flanged Outlet is a built-in feature of the Series 7600 fans, punched to suit outlet damper flange holes.

## Unitary Base

Rigid steel frame to provide a common mounting platform for fan and motor. May be ordered with spring or rubber-in-shear isolators and motor slide base.



## Additional Accessories

- Spark Resistant Construction
- Protective Coatings
- Special Metals
- Drain Openings
- High Temperature Construction
- Extended Grease Fittings
- Insulation Clips
- Mounted Drive Package

Due to the wide variety of BI fans available from Northern Blower we are unable to publish all information in one bulletin. Further information on custom fans is available from your Northern Blower sales representative.

# Fan Selection at Elevated Temperature and Altitude

**Fan Selection Tables**

Ratings shown in the Performance Tables are based on standard air density of .075 pounds per cubic foot at the fan inlet. Standard air is dry air at 70° F and 29.92" Hg barometric pressure. When air density varies from standard, due to temperature or altitude changes, the Air Density Correction Factor from Table 3 is applied. Refer to the sample selection that follows.

Note that data in the selection tables does not include the effects of accessories such as inlet dampers, outlet dampers, screens, or other components in the air stream.

**High Temperature**

Fan selected for high temperature service must fall within the limits for a particular arrangement as shown in Table 2. For selection, both fan performance and physical operating limits must be corrected. Refer to the sample selection on the following page.

**Table 1**

| Wheel & Shaft Maximum Speeds at 70°F ( SISW only ) | | | | | | |
|---|---|---|---|---|---|---|
| Size | Class I | | Class II | | Class III | |
| | Shaft | Wheel | Shaft | Wheel | Shaft | Wheel |
| 1225 | 3425 | 3425 | 4463 | 4463 | | |
| 1350 | 3032 | 3335 | 3951 | 4149 | | |
| 1500 | 2719 | 2855 | 3542 | 3613 | | |
| 1650 | 2471 | 2595 | 3219 | 3219 | | |
| 1825 | 2190 | 2300 | 2854 | 2911 | | |
| 2000 | 1996 | 1996 | 2600 | 2652 | | |
| 2225 | 1802 | 1892 | 2347 | 2464 | | |
| 2450 | 1694 | 1728 | 2208 | 2318 | 2777 | 2777 |
| 2700 | 1538 | 1615 | 2003 | 2103 | 2520 | 2646 |
| 3000 | 1383 | 1452 | 1802 | 1892 | 2267 | 2380 |
| 3300 | 1246 | 1308 | 1624 | 1705 | 2042 | 2083 |
| 3650 | 1126 | 1182 | 1467 | 1467 | 1845 | 1845 |
| 4025 | 1021 | 1072 | 1331 | 1358 | 1674 | 1758 |
| 4450 | 922 | 968 | 1201 | 1225 | 1511 | 1541 |
| 4900 | 837 | 879 | 1090 | 1145 | 1371 | 1398 |
| 5425 | 756 | 794 | 986 | 1035 | 1240 | 1265 |

**Table 2**

| High Temperature Operating Limits with Steel Wheels | | |
|---|---|---|
| Arrangement | Without Cooling Wheel | With Cooling Wheel |
| 1 SW | 300°F | 650°F * |
| 9 SW | 300°F | 650°F |

* Class III with cooling wheel and shaft seal to 800°F

**Table 3**

| Air Density Correction Factor | | | | | | | |
|---|---|---|---|---|---|---|---|
| Air Temp °F | Elevation (feet) above Sea Level | | | | | | |
| | 0 | 500 | 1000 | 2000 | 3000 | 4000 | 5000 |
| -40° | .79 | .81 | .82 | .85 | .88 | .92 | .95 |
| 0 | .87 | .88 | .90 | .93 | .97 | 1.00 | 1.04 |
| 40° | .94 | .96 | .98 | 1.01 | 1.05 | 1.09 | 1.13 |
| 70° | 1.00 | 1.02 | 1.04 | 1.08 | 1.12 | 1.16 | 1.20 |
| 100° | 1.06 | 1.08 | 1.10 | 1.14 | 1.18 | 1.22 | 1.27 |
| 140° | 1.13 | 1.15 | 1.17 | 1.22 | 1.26 | 1.31 | 1.36 |
| 180° | 1.21 | 1.23 | 1.25 | 1.30 | 1.35 | 1.40 | 1.45 |
| 200 | 1.25 | 1.27 | 1.29 | 1.34 | 1.39 | 1.44 | 1.50 |
| 250° | 1.34 | 1.36 | 1.39 | 1.44 | 1.49 | 1.55 | 1.61 |
| 300 | 1.43 | 1.46 | 1.49 | 1.54 | 1.60 | 1.66 | 1.72 |
| 350° | 1.53 | 1.56 | 1.58 | 1.64 | 1.71 | 1.77 | 1.84 |
| 400° | 1.62 | 1.65 | 1.68 | 1.75 | 1.81 | 1.88 | 1.95 |
| 450° | 1.72 | 1.75 | 1.78 | 1.85 | 1.92 | 1.99 | 2.06 |
| 500° | 1.81 | 1.84 | 1.88 | 1.95 | 2.02 | 2.10 | 2.18 |
| 600° | 2.00 | 2.04 | 2.07 | 2.15 | 2.23 | 2.32 | 2.40 |
| 700° | 2.19 | 2.23 | 2.27 | 2.35 | 2.44 | 2.53 | 2.63 |
| 800° | 2.38 | 2.42 | 2.46 | 2.56 | 2.65 | 2.75 | 2.86 |

**Table 4**

| Safe Speed Deration Factors | | |
|---|---|---|
| Temp °F | Steel Wheel | Steel Shaft |
| -50 to 150 | 1.0 | 1.0 |
| 200 | .93 | 1.0 |
| 300 | .89 | 1.0 |
| 400 | .86 | .99 |
| 500 | .82 | .97 |
| 600 | .79 | .96 |
| 700 | .76 | .95 |
| 800 | .68 | .94 |

**Sample Selection of a Belt Drive Fan**

Select a fan for the operating conditions of 7500 CFM at 2-1/2" SP, 500°F and 0 feet elevation.

1) Multiply the Operating SP by the Air Density Correction Factor (Table 3) to obtain Equivalent SP:

   Equivalent SP = Operating SP x Air Density Corr. Factor
   = 2-1/2" x 1.81 = 4-1/2"

2) From the Performance Table, select the fan size. For 7500 CFM at 4-1/2" SP an efficient selection would be a size 2450 fan. Interpolating from the Performance Table given on page 14, the selection fan performance is 1505 RPM and 7.13 BHP at standard temperature and pressure.

3) Divide the Equivalent BHP by the Air Density Correction Factor to obtain the Operating BHP:

$$\text{Operating BHP} = \frac{\text{Equivalent BHP}}{\text{Air Density Correction Factor}}$$

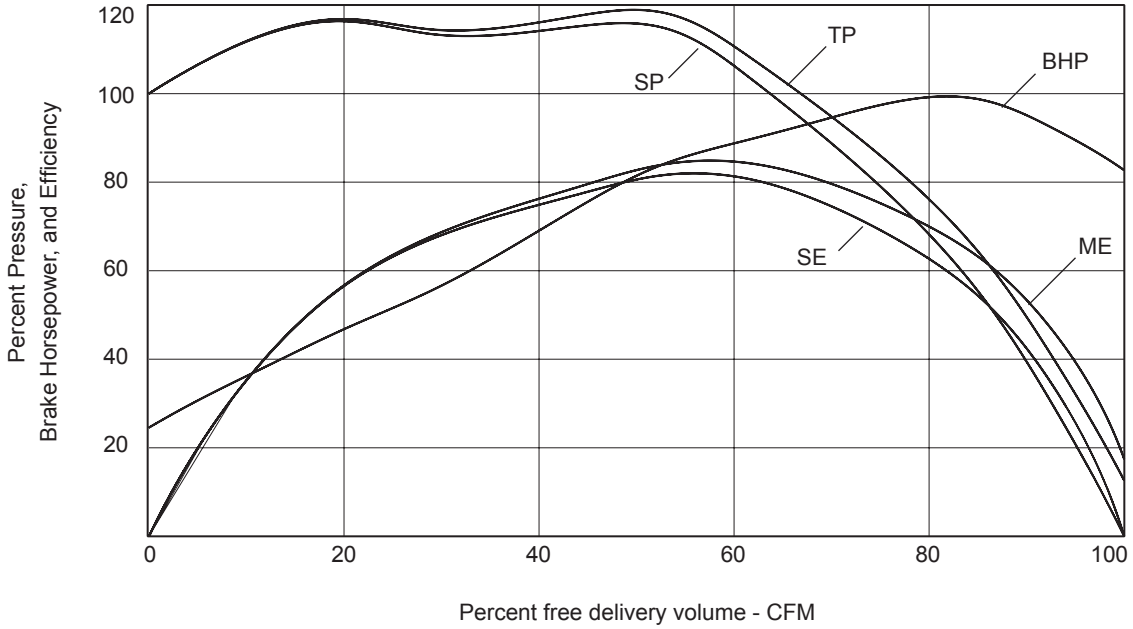
$$= \frac{7.13}{1.81} = 3.94 \text{ BHP}$$

4) Multiply the Wheel & Shaft Maximum Speed at 70°F values (Table 1) by the Wheel & Shaft Safe Speed Deration Factors (Table 4). For size 2450, Class II, the maximum speed at 500° F is:

   Wheel = 2318 x 0.82 = 1901 RPM
   Shaft = 2208 x 0.97 = 2142 RPM

   Since the fan selection speed of 1505 RPM is below ***both*** the maximum allowable wheel and shaft speeds, the Class II fan is a suitable selection.

## Design 7620 Performance Curve




- High Efficiency
- Stable Operation

Wheel Diameter = 12.25 in.
Outlet Area = 0.86 sq. ft. inside
Maximum BHP = .068 x $(RPM/1000)^3$
Tip Speed, fpm = 3.21 x RPM

| | |
|---|---|
| Class I | RPM 3425 |
| Class II | RPM 4463 |

Size

# 1225 SISW

## Design 7620 Centrifugal BI Fans

| Volume | O.Vel | 1/4"SP | | 3/8"SP | | 1/2"SP | | 5/8"SP | | 3/4"SP | | 7/8"SP | | 1"SP | | 1-1/4"SP | | 1-1/2"SP | | 1-3/4"SP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CFM | FPM | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 400 | 464 | 691 | 0.02 | 797 | 0.03 | 896 | 0.04 | | | | | | | | | | | | | | |
| 450 | 522 | 724 | 0.03 | 823 | 0.04 | 915 | 0.05 | 1003 | 0.06 | | | | | | | | | | | | |
| 500 | 580 | 762 | 0.03 | 853 | 0.04 | 940 | 0.05 | 1022 | 0.07 | 1100 | 0.08 | | | | | | | | | | |
| 550 | 638 | 803 | 0.03 | 886 | 0.05 | 968 | 0.06 | 1046 | 0.07 | 1120 | 0.09 | 1192 | 0.10 | | | | | | | | |
| 600 | 696 | 846 | 0.04 | 924 | 0.05 | 999 | 0.07 | 1073 | 0.08 | 1144 | 0.09 | 1212 | 0.11 | 1279 | 0.13 | | | | | | |
| 700 | 812 | 932 | 0.05 | 1006 | 0.07 | 1072 | 0.08 | 1137 | 0.10 | 1201 | 0.11 | 1264 | 0.13 | 1325 | 0.15 | 1441 | 0.18 | 1554 | 0.22 | | |
| 800 | 928 | 1020 | 0.07 | 1092 | 0.09 | 1155 | 0.10 | 1213 | 0.12 | 1269 | 0.14 | 1326 | 0.15 | 1381 | 0.17 | 1491 | 0.21 | 1594 | 0.25 | 1693 | 0.29 |
| 900 | 1044 | 1113 | 0.09 | 1178 | 0.11 | 1240 | 0.13 | 1296 | 0.15 | 1347 | 0.16 | 1398 | 0.18 | 1448 | 0.20 | 1548 | 0.24 | 1645 | 0.28 | 1739 | 0.33 |
| 1000 | 1160 | 1212 | 0.12 | 1267 | 0.14 | 1326 | 0.15 | 1381 | 0.18 | 1431 | 0.20 | 1478 | 0.22 | 1524 | 0.24 | 1614 | 0.28 | 1704 | 0.32 | 1792 | 0.37 |
| 1100 | 1276 | 1314 | 0.15 | 1361 | 0.17 | 1413 | 0.19 | 1467 | 0.21 | 1517 | 0.23 | 1563 | 0.26 | 1606 | 0.28 | 1689 | 0.32 | 1771 | 0.37 | 1853 | 0.42 |
| 1200 | 1392 | 1419 | 0.18 | 1460 | 0.20 | 1505 | 0.23 | 1554 | 0.25 | 1603 | 0.27 | 1648 | 0.30 | 1691 | 0.32 | 1771 | 0.37 | 1846 | 0.42 | 1922 | 0.47 |
| 1300 | 1508 | 1525 | 0.22 | 1561 | 0.25 | 1601 | 0.27 | 1644 | 0.30 | 1689 | 0.32 | 1734 | 0.35 | 1777 | 0.37 | 1855 | 0.43 | 1927 | 0.48 | 1997 | 0.53 |
| 1400 | 1624 | 1632 | 0.27 | 1665 | 0.30 | 1700 | 0.32 | 1738 | 0.35 | 1778 | 0.37 | 1821 | 0.40 | 1863 | 0.43 | 1940 | 0.49 | 2011 | 0.55 | 2078 | 0.60 |
| 1500 | 1740 | 1740 | 0.33 | 1770 | 0.35 | 1801 | 0.38 | 1835 | 0.41 | 1871 | 0.43 | 1910 | 0.46 | 1949 | 0.49 | 2026 | 0.55 | 2097 | 0.62 | 2162 | 0.68 |
| 1600 | 1856 | 1848 | 0.39 | 1876 | 0.42 | 1905 | 0.44 | 1935 | 0.47 | 1968 | 0.50 | 2002 | 0.53 | 2038 | 0.56 | 2112 | 0.63 | 2182 | 0.69 | 2247 | 0.76 |
| 1700 | 1972 | 1957 | 0.46 | 1983 | 0.49 | 2010 | 0.52 | 2037 | 0.55 | 2067 | 0.58 | 2098 | 0.61 | 2130 | 0.64 | 2199 | 0.71 | 2268 | 0.78 | 2332 | 0.85 |
| 1800 | 2088 | 2066 | 0.54 | 2091 | 0.57 | 2116 | 0.60 | 2141 | 0.63 | 2168 | 0.66 | 2196 | 0.69 | 2226 | 0.73 | 2289 | 0.80 | 2354 | 0.87 | 2418 | 0.94 |
| 1900 | 2204 | 2176 | 0.62 | 2199 | 0.66 | 2222 | 0.69 | 2246 | 0.72 | 2271 | 0.75 | 2296 | 0.79 | 2323 | 0.82 | 2381 | 0.90 | 2442 | 0.97 | 2504 | 1.04 |
| 2000 | 2320 | 2286 | 0.72 | 2307 | 0.75 | 2330 | 0.79 | 2352 | 0.82 | 2375 | 0.86 | 2399 | 0.89 | 2423 | 0.93 | 2476 | 1.00 | 2532 | 1.08 | 2591 | 1.16 |
| 2200 | 2552 | 2506 | 0.94 | 2526 | 0.98 | 2546 | 1.02 | 2566 | 1.05 | 2586 | 1.09 | 2607 | 1.13 | 2628 | 1.17 | 2673 | 1.25 | 2720 | 1.33 | 2771 | 1.41 |
| 2400 | 2784 | 2726 | 1.21 | 2745 | 1.25 | 2763 | 1.29 | 2781 | 1.33 | 2800 | 1.37 | 2818 | 1.41 | 2837 | 1.45 | 2876 | 1.54 | 2917 | 1.63 | 2961 | 1.71 |
| 2600 | 3016 | 2948 | 1.53 | 2965 | 1.57 | 2982 | 1.61 | 2999 | 1.65 | 3015 | 1.70 | 3032 | 1.74 | 3049 | 1.79 | 3084 | 1.87 | 3120 | 1.97 | 3158 | 2.06 |
| 2800 | 3248 | 3169 | 1.89 | 3185 | 1.94 | 3201 | 1.98 | 3217 | 2.03 | 3232 | 2.08 | 3248 | 2.12 | 3263 | 2.17 | 3295 | 2.26 | 3327 | 2.36 | 3361 | 2.46 |
| 3000 | 3480 | 3391 | 2.31 | 3406 | 2.36 | 3421 | 2.41 | 3436 | 2.46 | 3450 | 2.51 | 3465 | 2.56 | 3479 | 2.61 | 3508 | 2.71 | 3538 | 2.81 | 3568 | 2.92 |
| 3200 | 3713 | 3614 | 2.79 | 3627 | 2.84 | 3641 | 2.90 | 3655 | 2.95 | 3669 | 3.00 | 3683 | 3.05 | 3696 | 3.11 | 3723 | 3.21 | 3751 | 3.32 | 3778 | 3.43 |
| 3400 | 3945 | 3836 | 3.33 | 3849 | 3.39 | 3862 | 3.44 | 3875 | 3.50 | 3889 | 3.56 | 3901 | 3.61 | 3914 | 3.67 | 3939 | 3.78 | 3965 | 3.90 | 3990 | 4.01 |
| 3600 | 4177 | 4059 | 3.94 | 4071 | 4.00 | 4083 | 4.06 | 4096 | 4.12 | 4108 | 4.18 | 4121 | 4.24 | 4133 | 4.30 | 4157 | 4.41 | 4180 | 4.53 | 4204 | 4.66 |
| 3800 | 4409 | 4282 | 4.62 | 4293 | 4.68 | 4305 | 4.75 | 4317 | 4.81 | 4328 | 4.87 | 4340 | 4.94 | 4352 | 5.00 | 4375 | 5.12 | 4397 | 5.25 | 4419 | 5.37 |

| Volume | O.Vel | 2"SP | | 2-1/4"SP | | 2-1/2"SP | | 3"SP | | 3-1/2"SP | | 4"SP | | 4-1/2"SP | | 5"SP | | 5-1/2"SP | | 6"SP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CFM | FPM | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 800 | 928 | 1792 | 0.34 | | | | | | | | | | | | | | | | | | |
| 900 | 1044 | 1829 | 0.37 | 1917 | 0.42 | 2004 | 0.48 | | | | | | | | | | | | | | |
| 1000 | 1160 | 1878 | 0.42 | 1961 | 0.47 | 2041 | 0.52 | 2199 | 0.63 | | | | | | | | | | | | |
| 1100 | 1276 | 1934 | 0.47 | 2013 | 0.52 | 2090 | 0.57 | 2238 | 0.69 | 2381 | 0.81 | | | | | | | | | | |
| 1200 | 1392 | 1996 | 0.53 | 2071 | 0.58 | 2144 | 0.63 | 2286 | 0.75 | 2422 | 0.87 | 2554 | 1.00 | 2684 | 1.14 | | | | | | |
| 1300 | 1508 | 2066 | 0.59 | 2136 | 0.65 | 2205 | 0.70 | 2340 | 0.82 | 2471 | 0.95 | 2597 | 1.08 | 2719 | 1.22 | 2839 | 1.36 | | | | |
| 1400 | 1624 | 2143 | 0.66 | 2207 | 0.72 | 2271 | 0.78 | 2399 | 0.90 | 2525 | 1.03 | 2646 | 1.17 | 2763 | 1.31 | 2878 | 1.45 | 2990 | 1.61 | 3101 | 1.77 |
| 1500 | 1740 | 2224 | 0.74 | 2284 | 0.80 | 2344 | 0.86 | 2464 | 0.99 | 2583 | 1.12 | 2700 | 1.26 | 2814 | 1.41 | 2923 | 1.56 | 3031 | 1.71 | 3136 | 1.87 |
| 1600 | 1856 | 2307 | 0.83 | 2366 | 0.89 | 2423 | 0.95 | 2535 | 1.09 | 2647 | 1.23 | 2758 | 1.37 | 2868 | 1.52 | 2976 | 1.67 | 3080 | 1.83 | 3181 | 1.99 |
| 1700 | 1972 | 2392 | 0.92 | 2449 | 0.99 | 2505 | 1.06 | 2611 | 1.19 | 2717 | 1.34 | 2822 | 1.49 | 2926 | 1.64 | 3030 | 1.79 | 3131 | 1.95 | 3229 | 2.12 |
| 1800 | 2088 | 2478 | 1.02 | 2534 | 1.09 | 2589 | 1.17 | 2691 | 1.31 | 2792 | 1.46 | 2891 | 1.61 | 2990 | 1.77 | 3089 | 1.93 | 3186 | 2.09 | 3282 | 2.26 |
| 2000 | 2320 | 2650 | 1.24 | 2705 | 1.32 | 2759 | 1.40 | 2859 | 1.57 | 2952 | 1.73 | 3042 | 1.89 | 3132 | 2.06 | 3221 | 2.23 | 3310 | 2.40 | 3399 | 2.58 |
| 2200 | 2552 | 2824 | 1.50 | 2878 | 1.59 | 2931 | 1.68 | 3029 | 1.86 | 3120 | 2.04 | 3206 | 2.22 | 3289 | 2.39 | 3371 | 2.57 | 3452 | 2.76 | 3533 | 2.95 |
| 2400 | 2784 | 3007 | 1.81 | 3055 | 1.90 | 3104 | 1.99 | 3201 | 2.18 | 3291 | 2.38 | 3375 | 2.58 | 3456 | 2.78 | 3533 | 2.97 | 3608 | 3.16 | 3682 | 3.36 |
| 2600 | 3016 | 3198 | 2.16 | 3240 | 2.26 | 3284 | 2.36 | 3374 | 2.56 | 3463 | 2.77 | 3547 | 2.98 | 3626 | 3.20 | 3701 | 3.41 | 3773 | 3.62 | 3843 | 3.83 |
| 2800 | 3248 | 3396 | 2.56 | 3433 | 2.67 | 3471 | 2.77 | 3552 | 2.98 | 3636 | 3.20 | 3718 | 3.42 | 3797 | 3.66 | 3871 | 3.89 | 3942 | 4.12 | 4011 | 4.35 |
| 3000 | 3480 | 3600 | 3.02 | 3632 | 3.13 | 3666 | 3.24 | 3737 | 3.47 | 3813 | 3.69 | 3891 | 3.93 | 3968 | 4.16 | 4042 | 4.41 | 4113 | 4.66 | 4181 | 4.91 |
| 3200 | 3713 | 3807 | 3.54 | 3836 | 3.65 | 3866 | 3.77 | 3930 | 4.00 | 3998 | 4.25 | 4069 | 4.49 | 4142 | 4.74 | 4214 | 4.99 | 4284 | 5.25 | 4352 | 5.52 |
| 3400 | 3945 | 4017 | 4.12 | 4043 | 4.24 | 4071 | 4.36 | 4128 | 4.61 | 4189 | 4.86 | 4253 | 5.11 | 4320 | 5.37 | 4388 | 5.63 | 4456 | 5.90 | | |
| 3600 | 4177 | 4229 | 4.78 | 4253 | 4.90 | 4278 | 5.02 | 4331 | 5.28 | 4385 | 5.54 | 4443 | 5.81 | | | | | | | | |
| 3800 | 4409 | 4442 | 5.50 | | | | | | | | | | | | | | | | | | |

| Volume | O.Vel | 6-1/2"SP | | 7"SP | | 7-1/2"SP | | 8"SP | | 8-1/2"SP | | 9"SP | | 9-1/2"SP | | 10"SP | | 10-1/2"SP | | 11"SP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CFM | FPM | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 1500 | 1740 | 3241 | 2.04 | 3345 | 2.21 | | | | | | | | | | | | | | | | |
| 1600 | 1856 | 3280 | 2.16 | 3378 | 2.33 | 3476 | 2.51 | 3573 | 2.70 | | | | | | | | | | | | |
| 1700 | 1972 | 3326 | 2.29 | 3420 | 2.46 | 3514 | 2.64 | 3606 | 2.83 | 3697 | 3.02 | 3789 | 3.22 | | | | | | | | |
| 1800 | 2088 | 3376 | 2.44 | 3469 | 2.61 | 3558 | 2.79 | 3647 | 2.98 | 3735 | 3.17 | 3822 | 3.37 | 3908 | 3.57 | 3995 | 3.78 | | | | |
| 2000 | 2320 | 3488 | 2.76 | 3575 | 2.94 | 3660 | 3.13 | 3745 | 3.33 | 3828 | 3.52 | 3908 | 3.72 | 3989 | 3.93 | 4068 | 4.13 | 4147 | 4.35 | 4225 | 4.56 |
| 2200 | 2552 | 3615 | 3.14 | 3695 | 3.33 | 3775 | 3.52 | 3855 | 3.72 | 3934 | 3.93 | 4011 | 4.13 | 4089 | 4.35 | 4163 | 4.56 | 4238 | 4.78 | 4311 | 4.99 |
| 2400 | 2784 | 3757 | 3.56 | 3831 | 3.77 | 3905 | 3.97 | 3979 | 4.18 | 4053 | 4.39 | 4126 | 4.60 | 4199 | 4.82 | 4271 | 5.04 | 4342 | 5.26 | 4413 | 5.49 |
| 2600 | 3016 | 3913 | 4.04 | 3981 | 4.25 | 4050 | 4.47 | 4118 | 4.69 | 4186 | 4.91 | 4255 | 5.13 | 4322 | 5.35 | 4391 | 5.58 | 4457 | 5.81 | | |
| 2800 | 3248 | 4077 | 4.57 | 4142 | 4.79 | 4206 | 5.02 | 4269 | 5.24 | 4333 | 5.48 | 4396 | 5.71 | 4460 | 5.95 | | | | | | |
| 3000 | 3480 | 4245 | 5.15 | 4309 | 5.39 | 4370 | 5.63 | 4430 | 5.87 | | | | | | | | | | | | |
| 3200 | 3713 | 4416 | 5.78 | | | | | | | | | | | | | | | | | | |

The BHP shown does not include belt drive losses. Belt drive is not recommended above 3600 RPM. The performance shown is for fan with outlet duct.



NORTHERN BLOWER®

Wheel Diameter = 13.50 in.
Outlet Area = 1.05 sq. ft. inside
Maximum BHP = .119 x $(RPM/1000)^3$
Tip Speed, fpm = 3.53 x RPM

| | |
|---|---|
| Class I | RPM 3032 |
| Class II | RPM 3951 |

Size

# 1350 SISW

## Design 7620 Centrifugal BI Fans

| Volume | O.Vel | 1/4"SP | | 3/8"SP | | 1/2"SP | | 5/8"SP | | 3/4"SP | | 7/8"SP | | 1"SP | | 1-1/4"SP | | 1-1/2"SP | | 1-3/4"SP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CFM | FPM | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 600 | 572 | 669 | 0.03 | 762 | 0.05 | 848 | 0.06 | 927 | 0.08 | 1001 | 0.10 | | | | | | | | | | |
| 700 | 668 | 724 | 0.04 | 803 | 0.06 | 882 | 0.08 | 958 | 0.09 | 1028 | 0.11 | 1094 | 0.13 | 1157 | 0.15 | | | | | | |
| 800 | 763 | 785 | 0.06 | 854 | 0.07 | 923 | 0.09 | 993 | 0.11 | 1060 | 0.13 | 1124 | 0.15 | 1185 | 0.17 | 1297 | 0.21 | 1402 | 0.26 | | |
| 900 | 859 | 849 | 0.07 | 912 | 0.09 | 973 | 0.11 | 1035 | 0.13 | 1097 | 0.15 | 1158 | 0.17 | 1216 | 0.19 | 1326 | 0.24 | 1428 | 0.29 | 1523 | 0.34 |
| 1000 | 954 | 917 | 0.09 | 974 | 0.11 | 1029 | 0.13 | 1085 | 0.15 | 1140 | 0.17 | 1196 | 0.19 | 1251 | 0.21 | 1357 | 0.26 | 1456 | 0.32 | 1550 | 0.37 |
| 1100 | 1049 | 987 | 0.11 | 1039 | 0.13 | 1090 | 0.15 | 1140 | 0.17 | 1191 | 0.20 | 1241 | 0.22 | 1291 | 0.24 | 1392 | 0.29 | 1488 | 0.35 | 1579 | 0.41 |
| 1200 | 1145 | 1058 | 0.13 | 1106 | 0.16 | 1153 | 0.18 | 1200 | 0.20 | 1246 | 0.23 | 1292 | 0.25 | 1338 | 0.27 | 1431 | 0.33 | 1523 | 0.38 | 1611 | 0.45 |
| 1300 | 1240 | 1131 | 0.16 | 1175 | 0.19 | 1219 | 0.21 | 1262 | 0.24 | 1305 | 0.26 | 1348 | 0.29 | 1390 | 0.31 | 1475 | 0.37 | 1561 | 0.42 | 1646 | 0.49 |
| 1400 | 1335 | 1204 | 0.19 | 1246 | 0.22 | 1287 | 0.25 | 1327 | 0.27 | 1368 | 0.30 | 1407 | 0.33 | 1447 | 0.36 | 1526 | 0.41 | 1605 | 0.47 | 1684 | 0.53 |
| 1500 | 1431 | 1279 | 0.23 | 1318 | 0.26 | 1356 | 0.29 | 1394 | 0.32 | 1432 | 0.35 | 1469 | 0.37 | 1506 | 0.40 | 1580 | 0.46 | 1654 | 0.52 | 1727 | 0.58 |
| 1600 | 1526 | 1354 | 0.27 | 1391 | 0.30 | 1427 | 0.33 | 1462 | 0.36 | 1498 | 0.39 | 1533 | 0.42 | 1568 | 0.46 | 1638 | 0.52 | 1707 | 0.58 | 1776 | 0.64 |
| 1800 | 1717 | 1506 | 0.37 | 1539 | 0.40 | 1571 | 0.44 | 1603 | 0.47 | 1635 | 0.50 | 1666 | 0.54 | 1698 | 0.57 | 1760 | 0.64 | 1822 | 0.71 | 1883 | 0.78 |
| 2000 | 1908 | 1660 | 0.49 | 1689 | 0.52 | 1718 | 0.56 | 1747 | 0.60 | 1776 | 0.64 | 1805 | 0.68 | 1833 | 0.71 | 1889 | 0.79 | 1946 | 0.87 | 2001 | 0.95 |
| 2200 | 2099 | 1814 | 0.63 | 1841 | 0.67 | 1868 | 0.71 | 1894 | 0.75 | 1920 | 0.80 | 1947 | 0.84 | 1972 | 0.88 | 2024 | 0.96 | 2076 | 1.05 | 2126 | 1.13 |
| 2400 | 2289 | 1970 | 0.80 | 1995 | 0.85 | 2019 | 0.89 | 2043 | 0.94 | 2067 | 0.98 | 2091 | 1.03 | 2115 | 1.07 | 2163 | 1.16 | 2210 | 1.26 | 2257 | 1.35 |
| 2600 | 2480 | 2126 | 1.01 | 2149 | 1.05 | 2172 | 1.10 | 2194 | 1.15 | 2216 | 1.20 | 2238 | 1.25 | 2261 | 1.30 | 2305 | 1.39 | 2349 | 1.49 | 2392 | 1.59 |
| 2800 | 2671 | 2283 | 1.24 | 2304 | 1.29 | 2325 | 1.34 | 2346 | 1.39 | 2367 | 1.45 | 2387 | 1.50 | 2408 | 1.55 | 2449 | 1.66 | 2490 | 1.76 | 2531 | 1.87 |
| 3000 | 2862 | 2440 | 1.51 | 2460 | 1.57 | 2480 | 1.62 | 2499 | 1.68 | 2518 | 1.73 | 2538 | 1.79 | 2557 | 1.84 | 2595 | 1.95 | 2634 | 2.06 | 2672 | 2.18 |
| 3200 | 3052 | 2597 | 1.82 | 2616 | 1.88 | 2635 | 1.93 | 2653 | 1.99 | 2671 | 2.05 | 2689 | 2.11 | 2707 | 2.17 | 2743 | 2.29 | 2780 | 2.41 | 2815 | 2.53 |
| 3400 | 3243 | 2755 | 2.16 | 2773 | 2.23 | 2791 | 2.29 | 2808 | 2.35 | 2825 | 2.41 | 2842 | 2.47 | 2859 | 2.54 | 2893 | 2.66 | 2927 | 2.79 | 2960 | 2.92 |
| 3600 | 3434 | 2913 | 2.55 | 2930 | 2.62 | 2947 | 2.68 | 2963 | 2.75 | 2979 | 2.81 | 2996 | 2.88 | 3012 | 2.95 | 3044 | 3.08 | 3075 | 3.21 | 3107 | 3.35 |
| 3800 | 3625 | 3071 | 2.99 | 3087 | 3.06 | 3103 | 3.13 | 3119 | 3.19 | 3134 | 3.26 | 3150 | 3.33 | 3165 | 3.40 | 3195 | 3.54 | 3226 | 3.68 | 3255 | 3.82 |
| 4000 | 3816 | 3230 | 3.47 | 3245 | 3.54 | 3260 | 3.61 | 3275 | 3.69 | 3290 | 3.76 | 3304 | 3.83 | 3319 | 3.90 | 3348 | 4.05 | 3376 | 4.20 | 3405 | 4.35 |
| 4200 | 4006 | 3388 | 4.00 | 3403 | 4.07 | 3417 | 4.15 | 3432 | 4.23 | 3446 | 4.30 | 3460 | 4.38 | 3474 | 4.46 | 3501 | 4.61 | 3528 | 4.76 | 3555 | 4.92 |
| 4400 | 4197 | 3547 | 4.58 | 3561 | 4.66 | 3575 | 4.74 | 3589 | 4.82 | 3602 | 4.90 | 3615 | 4.98 | 3629 | 5.06 | 3655 | 5.22 | 3681 | 5.38 | 3707 | 5.54 |
| 4600 | 4388 | 3706 | 5.22 | 3719 | 5.30 | 3732 | 5.39 | 3745 | 5.47 | 3759 | 5.56 | 3771 | 5.64 | 3784 | 5.72 | 3809 | 5.89 | 3835 | 6.06 | 3859 | 6.22 |
| 4800 | 4579 | 3864 | 5.92 | 3877 | 6.00 | 3890 | 6.09 | 3903 | 6.18 | 3915 | 6.27 | 3928 | 6.35 | 3940 | 6.44 | | | | | | |

| Volume | O.Vel | 2"SP | | 2-1/4"SP | | 2-1/2"SP | | 3"SP | | 3-1/2"SP | | 4"SP | | 4-1/2"SP | | 5"SP | | 5-1/2"SP | | 6"SP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CFM | FPM | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 1000 | 954 | 1637 | 0.43 | 1722 | 0.49 | | | | | | | | | | | | | | | | |
| 1100 | 1049 | 1665 | 0.47 | 1748 | 0.53 | 1827 | 0.59 | | | | | | | | | | | | | | |
| 1200 | 1145 | 1695 | 0.51 | 1776 | 0.57 | 1853 | 0.64 | 1999 | 0.77 | | | | | | | | | | | | |
| 1300 | 1240 | 1728 | 0.55 | 1806 | 0.62 | 1881 | 0.69 | 2025 | 0.83 | 2160 | 0.98 | 2285 | 1.13 | | | | | | | | |
| 1400 | 1335 | 1763 | 0.60 | 1840 | 0.67 | 1914 | 0.74 | 2054 | 0.89 | 2185 | 1.04 | 2310 | 1.20 | 2430 | 1.37 | | | | | | |
| 1500 | 1431 | 1802 | 0.65 | 1876 | 0.72 | 1947 | 0.80 | 2084 | 0.95 | 2215 | 1.11 | 2337 | 1.27 | 2453 | 1.44 | 2565 | 1.62 | | | | |
| 1600 | 1526 | 1845 | 0.71 | 1914 | 0.78 | 1984 | 0.86 | 2118 | 1.02 | 2244 | 1.18 | 2366 | 1.35 | 2480 | 1.53 | 2590 | 1.71 | 2696 | 1.89 | 2798 | 2.08 |
| 1800 | 1717 | 1945 | 0.85 | 2006 | 0.93 | 2067 | 1.00 | 2191 | 1.17 | 2312 | 1.34 | 2428 | 1.52 | 2539 | 1.71 | 2647 | 1.90 | 2750 | 2.10 | 2850 | 2.29 |
| 2000 | 1908 | 2057 | 1.02 | 2112 | 1.10 | 2167 | 1.18 | 2277 | 1.34 | 2388 | 1.52 | 2499 | 1.71 | 2606 | 1.91 | 2709 | 2.11 | 2809 | 2.32 | 2905 | 2.53 |
| 2200 | 2099 | 2177 | 1.22 | 2228 | 1.30 | 2278 | 1.39 | 2378 | 1.56 | 2477 | 1.74 | 2578 | 1.93 | 2679 | 2.14 | 2778 | 2.35 | 2875 | 2.56 | 2969 | 2.78 |
| 2400 | 2289 | 2304 | 1.44 | 2350 | 1.54 | 2397 | 1.63 | 2489 | 1.81 | 2580 | 2.00 | 2671 | 2.19 | 2763 | 2.39 | 2855 | 2.61 | 2947 | 2.84 | 3038 | 3.07 |
| 2600 | 2480 | 2436 | 1.69 | 2479 | 1.79 | 2522 | 1.89 | 2607 | 2.10 | 2692 | 2.29 | 2776 | 2.49 | 2860 | 2.70 | 2944 | 2.92 | 3029 | 3.14 | 3115 | 3.38 |
| 2800 | 2671 | 2571 | 1.97 | 2611 | 2.08 | 2651 | 2.19 | 2731 | 2.41 | 2810 | 2.62 | 2888 | 2.84 | 2966 | 3.05 | 3044 | 3.27 | 3122 | 3.50 | 3201 | 3.74 |
| 3000 | 2862 | 2710 | 2.29 | 2747 | 2.41 | 2785 | 2.52 | 2859 | 2.75 | 2933 | 2.99 | 3007 | 3.22 | 3080 | 3.45 | 3153 | 3.67 | 3226 | 3.91 | 3298 | 4.14 |
| 3200 | 3052 | 2851 | 2.65 | 2886 | 2.77 | 2921 | 2.89 | 2991 | 3.14 | 3061 | 3.38 | 3130 | 3.63 | 3199 | 3.88 | 3268 | 4.12 | 3336 | 4.36 | 3404 | 4.61 |
| 3400 | 3243 | 2994 | 3.04 | 3028 | 3.17 | 3061 | 3.30 | 3127 | 3.56 | 3192 | 3.82 | 3258 | 4.08 | 3323 | 4.34 | 3388 | 4.61 | 3452 | 4.87 | 3516 | 5.12 |
| 3600 | 3434 | 3139 | 3.48 | 3171 | 3.61 | 3202 | 3.75 | 3265 | 4.03 | 3327 | 4.30 | 3389 | 4.57 | 3450 | 4.85 | 3512 | 5.13 | 3573 | 5.41 | 3633 | 5.68 |
| 3800 | 3625 | 3286 | 3.96 | 3316 | 4.10 | 3345 | 4.25 | 3405 | 4.53 | 3464 | 4.82 | 3523 | 5.11 | 3581 | 5.40 | 3639 | 5.69 | 3697 | 5.99 | 3755 | 6.28 |
| 4000 | 3816 | 3433 | 4.49 | 3462 | 4.64 | 3490 | 4.79 | 3547 | 5.09 | 3603 | 5.39 | 3659 | 5.69 | 3715 | 6.00 | 3770 | 6.30 | 3825 | 6.61 | 3880 | 6.92 |
| 4200 | 4006 | 3583 | 5.07 | 3609 | 5.23 | 3637 | 5.38 | 3690 | 5.70 | 3744 | 6.01 | 3798 | 6.33 | 3850 | 6.64 | 3903 | 6.97 | | | | |
| 4400 | 4197 | 3733 | 5.71 | 3758 | 5.87 | 3784 | 6.03 | 3836 | 6.36 | 3887 | 6.68 | 3938 | 7.01 | | | | | | | | |
| 4600 | 4388 | 3884 | 6.39 | 3909 | 6.56 | 3933 | 6.73 | | | | | | | | | | | | | | |

| Volume | O.Vel | 6-1/2"SP | | 7"SP | | 7-1/2"SP | | 8"SP | | 8-1/2"SP | | 9"SP | | 9-1/2"SP | | 10"SP | | 10-1/2"SP | | 11"SP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CFM | FPM | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 1800 | 1717 | 2945 | 2.50 | 3038 | 2.71 | 3130 | 2.92 | | | | | | | | | | | | | | |
| 2000 | 1908 | 2999 | 2.74 | 3091 | 2.96 | 3181 | 3.19 | 3266 | 3.41 | 3350 | 3.64 | 3433 | 3.88 | 3512 | 4.12 | | | | | | |
| 2200 | 2099 | 3060 | 3.01 | 3149 | 3.24 | 3237 | 3.48 | 3320 | 3.71 | 3403 | 3.95 | 3485 | 4.20 | 3562 | 4.44 | 3641 | 4.70 | 3714 | 4.95 | 3790 | 5.22 |
| 2400 | 2289 | 3127 | 3.30 | 3213 | 3.54 | 3298 | 3.79 | 3380 | 4.03 | 3460 | 4.28 | 3540 | 4.54 | 3616 | 4.80 | 3692 | 5.06 | 3766 | 5.33 | 3839 | 5.60 |
| 2600 | 2480 | 3199 | 3.62 | 3283 | 3.87 | 3365 | 4.13 | 3446 | 4.39 | 3523 | 4.65 | 3600 | 4.92 | 3676 | 5.19 | 3749 | 5.45 | 3823 | 5.74 | 3893 | 6.01 |
| 2800 | 2671 | 3280 | 3.98 | 3359 | 4.24 | 3437 | 4.50 | 3515 | 4.77 | 3592 | 5.05 | 3667 | 5.32 | 3740 | 5.60 | 3813 | 5.89 | 3883 | 6.17 | | |
| 3000 | 2862 | 3371 | 4.39 | 3444 | 4.65 | 3518 | 4.92 | 3591 | 5.19 | 3664 | 5.47 | 3738 | 5.76 | 3809 | 6.05 | 3880 | 6.34 | 3950 | 6.64 | | |
| 3200 | 3052 | 3472 | 4.86 | 3540 | 5.12 | 3608 | 5.38 | 3677 | 5.66 | 3746 | 5.94 | 3814 | 6.23 | 3883 | 6.53 | | | | | | |
| 3400 | 3243 | 3580 | 5.38 | 3644 | 5.64 | 3707 | 5.91 | 3772 | 6.19 | 3836 | 6.47 | 3900 | 6.76 | | | | | | | | |
| 3600 | 3434 | 3694 | 5.95 | 3755 | 6.22 | 3814 | 6.50 | 3875 | 6.78 | 3934 | 7.06 | | | | | | | | | | |
| 3800 | 3625 | 3812 | 6.57 | 3870 | 6.86 | 3927 | 7.14 | | | | | | | | | | | | | | |
| 4000 | 3816 | 3935 | 7.23 | | | | | | | | | | | | | | | | | | |

The BHP shown does not include belt drive losses. Belt drive is not recommended above 3600 RPM. The performance shown is for fan with outlet duct.

Wheel Diameter = 15.00 in.
Outlet Area = 1.29 sq. ft. inside
Maximum BHP = .201 x $(RPM/1000)^3$
Tip Speed, fpm = 3.93 x RPM

| | |
|---|---|
| Class I | RPM 2719 |
| Class II | RPM 3542 |

Size

# 1500 SISW

## Design 7620 Centrifugal BI Fans

| Volume | O.Vel | 1/4"SP | | 3/8"SP | | 1/2"SP | | 5/8"SP | | 3/4"SP | | 7/8"SP | | 1"SP | | 1-1/4"SP | | 1-1/2"SP | | 1-3/4"SP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CFM | FPM | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 600 | 464 | 559 | 0.03 | 652 | 0.05 | 734 | 0.06 | | | | | | | | | | | | | | |
| 800 | 618 | 625 | 0.05 | 702 | 0.07 | 778 | 0.09 | 847 | 0.11 | 912 | 0.13 | 973 | 0.15 | 1029 | 0.17 | | | | | | |
| 1000 | 773 | 712 | 0.07 | 774 | 0.09 | 835 | 0.11 | 897 | 0.13 | 957 | 0.16 | 1014 | 0.19 | 1068 | 0.21 | 1170 | 0.27 | 1264 | 0.33 | | |
| 1200 | 927 | 808 | 0.10 | 860 | 0.13 | 912 | 0.15 | 963 | 0.17 | 1014 | 0.20 | 1066 | 0.23 | 1117 | 0.26 | 1213 | 0.32 | 1303 | 0.38 | 1388 | 0.45 |
| 1400 | 1082 | 910 | 0.15 | 955 | 0.17 | 1000 | 0.20 | 1044 | 0.23 | 1088 | 0.25 | 1132 | 0.28 | 1176 | 0.31 | 1264 | 0.38 | 1350 | 0.45 | 1430 | 0.52 |
| 1600 | 1236 | 1015 | 0.20 | 1055 | 0.23 | 1095 | 0.26 | 1134 | 0.29 | 1173 | 0.32 | 1211 | 0.35 | 1249 | 0.38 | 1326 | 0.45 | 1404 | 0.52 | 1480 | 0.60 |
| 1800 | 1391 | 1123 | 0.26 | 1159 | 0.30 | 1194 | 0.33 | 1229 | 0.37 | 1264 | 0.40 | 1299 | 0.44 | 1333 | 0.47 | 1401 | 0.54 | 1469 | 0.61 | 1538 | 0.69 |
| 2000 | 1545 | 1232 | 0.35 | 1265 | 0.38 | 1297 | 0.42 | 1329 | 0.46 | 1360 | 0.50 | 1392 | 0.54 | 1423 | 0.58 | 1485 | 0.65 | 1546 | 0.73 | 1607 | 0.81 |
| 2200 | 1700 | 1343 | 0.44 | 1373 | 0.48 | 1402 | 0.53 | 1431 | 0.57 | 1460 | 0.61 | 1489 | 0.65 | 1517 | 0.69 | 1574 | 0.78 | 1630 | 0.86 | 1686 | 0.95 |
| 2400 | 1854 | 1455 | 0.56 | 1482 | 0.60 | 1509 | 0.65 | 1536 | 0.69 | 1562 | 0.74 | 1589 | 0.78 | 1615 | 0.83 | 1668 | 0.92 | 1719 | 1.02 | 1771 | 1.11 |
| 2600 | 2009 | 1567 | 0.69 | 1592 | 0.74 | 1617 | 0.79 | 1642 | 0.84 | 1667 | 0.89 | 1691 | 0.94 | 1716 | 0.99 | 1764 | 1.09 | 1812 | 1.19 | 1860 | 1.29 |
| 2800 | 2163 | 1680 | 0.85 | 1704 | 0.90 | 1727 | 0.95 | 1750 | 1.00 | 1773 | 1.06 | 1796 | 1.11 | 1819 | 1.16 | 1864 | 1.27 | 1909 | 1.38 | 1953 | 1.49 |
| 3000 | 2318 | 1794 | 1.03 | 1816 | 1.08 | 1837 | 1.14 | 1859 | 1.19 | 1880 | 1.25 | 1902 | 1.31 | 1923 | 1.36 | 1966 | 1.48 | 2008 | 1.59 | 2049 | 1.71 |
| 3200 | 2472 | 1908 | 1.23 | 1928 | 1.29 | 1949 | 1.35 | 1969 | 1.41 | 1989 | 1.47 | 2009 | 1.53 | 2029 | 1.59 | 2069 | 1.71 | 2109 | 1.83 | 2148 | 1.95 |
| 3400 | 2627 | 2022 | 1.46 | 2042 | 1.52 | 2061 | 1.59 | 2080 | 1.65 | 2099 | 1.71 | 2118 | 1.77 | 2136 | 1.84 | 2174 | 1.97 | 2212 | 2.09 | 2249 | 2.22 |
| 3600 | 2782 | 2137 | 1.72 | 2155 | 1.79 | 2173 | 1.85 | 2191 | 1.92 | 2209 | 1.98 | 2227 | 2.05 | 2245 | 2.12 | 2281 | 2.25 | 2316 | 2.39 | 2351 | 2.52 |
| 3800 | 2936 | 2251 | 2.01 | 2269 | 2.08 | 2286 | 2.15 | 2303 | 2.22 | 2320 | 2.28 | 2337 | 2.35 | 2354 | 2.43 | 2388 | 2.57 | 2421 | 2.71 | 2455 | 2.85 |
| 4000 | 3091 | 2366 | 2.33 | 2383 | 2.40 | 2399 | 2.47 | 2416 | 2.54 | 2432 | 2.62 | 2448 | 2.69 | 2464 | 2.76 | 2496 | 2.91 | 2528 | 3.06 | 2560 | 3.21 |
| 4200 | 3245 | 2481 | 2.68 | 2497 | 2.75 | 2513 | 2.83 | 2528 | 2.91 | 2544 | 2.98 | 2559 | 3.06 | 2574 | 3.14 | 2605 | 3.29 | 2635 | 3.45 | 2666 | 3.61 |
| 4400 | 3400 | 2596 | 3.06 | 2612 | 3.14 | 2627 | 3.22 | 2642 | 3.30 | 2656 | 3.38 | 2671 | 3.46 | 2686 | 3.54 | 2715 | 3.70 | 2744 | 3.87 | 2773 | 4.03 |
| 4600 | 3554 | 2711 | 3.48 | 2726 | 3.57 | 2741 | 3.65 | 2755 | 3.73 | 2769 | 3.82 | 2783 | 3.90 | 2798 | 3.99 | 2825 | 4.15 | 2853 | 4.33 | 2880 | 4.49 |
| 4800 | 3709 | 2827 | 3.94 | 2841 | 4.03 | 2855 | 4.12 | 2869 | 4.20 | 2882 | 4.29 | 2896 | 4.38 | 2910 | 4.47 | 2936 | 4.64 | 2963 | 4.82 | 2989 | 4.99 |
| 5000 | 3863 | 2942 | 4.44 | 2956 | 4.53 | 2970 | 4.62 | 2983 | 4.71 | 2996 | 4.80 | 3009 | 4.89 | 3022 | 4.99 | 3047 | 5.17 | 3073 | 5.35 | 3098 | 5.54 |
| 5200 | 4018 | 3058 | 4.98 | 3071 | 5.07 | 3084 | 5.17 | 3097 | 5.26 | 3110 | 5.36 | 3122 | 5.45 | 3135 | 5.54 | 3160 | 5.74 | 3184 | 5.92 | 3208 | 6.12 |
| 5400 | 4172 | 3173 | 5.56 | 3186 | 5.66 | 3199 | 5.76 | 3211 | 5.86 | 3223 | 5.95 | 3236 | 6.05 | 3248 | 6.15 | 3272 | 6.35 | 3295 | 6.54 | 3318 | 6.74 |
| 5600 | 4327 | 3289 | 6.19 | 3301 | 6.29 | 3313 | 6.39 | 3326 | 6.49 | 3338 | 6.59 | 3349 | 6.69 | 3361 | 6.80 | 3384 | 7.00 | 3407 | 7.21 | 3429 | 7.41 |
| 5800 | 4481 | 3405 | 6.86 | 3417 | 6.96 | 3428 | 7.07 | 3440 | 7.17 | 3452 | 7.28 | 3463 | 7.38 | 3474 | 7.49 | 3497 | 7.70 | 3519 | 7.91 | 3540 | 8.12 |
| 6000 | 4636 | 3521 | 7.58 | 3532 | 7.68 | | | | | | | | | | | | | | | | |

| Volume | O.Vel | 2"SP | | 2-1/4"SP | | 2-1/2"SP | | 3"SP | | 3-1/2"SP | | 4"SP | | 4-1/2"SP | | 5"SP | | 5-1/2"SP | | 6"SP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CFM | FPM | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 1200 | 927 | 1467 | 0.52 | 1543 | 0.59 | | | | | | | | | | | | | | | | |
| 1400 | 1082 | 1508 | 0.59 | 1581 | 0.67 | 1651 | 0.75 | 1784 | 0.91 | | | | | | | | | | | | |
| 1600 | 1236 | 1554 | 0.68 | 1624 | 0.76 | 1692 | 0.84 | 1821 | 1.02 | 1943 | 1.20 | 2056 | 1.39 | | | | | | | | |
| 1800 | 1391 | 1606 | 0.78 | 1674 | 0.86 | 1740 | 0.96 | 1864 | 1.14 | 1981 | 1.33 | 2094 | 1.53 | 2199 | 1.74 | 2300 | 1.95 | | | | |
| 2000 | 1545 | 1669 | 0.89 | 1730 | 0.98 | 1792 | 1.08 | 1912 | 1.27 | 2026 | 1.48 | 2134 | 1.69 | 2238 | 1.91 | 2337 | 2.13 | 2432 | 2.36 | 2524 | 2.60 |
| 2200 | 1700 | 1741 | 1.04 | 1797 | 1.13 | 1853 | 1.22 | 1965 | 1.42 | 2075 | 1.64 | 2180 | 1.86 | 2281 | 2.09 | 2377 | 2.32 | 2470 | 2.56 | 2561 | 2.81 |
| 2400 | 1854 | 1822 | 1.20 | 1873 | 1.29 | 1923 | 1.39 | 2026 | 1.59 | 2129 | 1.81 | 2230 | 2.05 | 2328 | 2.29 | 2422 | 2.53 | 2512 | 2.78 | 2600 | 3.04 |
| 2600 | 2009 | 1908 | 1.39 | 1955 | 1.49 | 2002 | 1.59 | 2096 | 1.79 | 2190 | 2.02 | 2285 | 2.25 | 2379 | 2.50 | 2470 | 2.76 | 2559 | 3.02 | 2644 | 3.28 |
| 2800 | 2163 | 1998 | 1.60 | 2042 | 1.71 | 2086 | 1.81 | 2173 | 2.03 | 2260 | 2.25 | 2347 | 2.49 | 2435 | 2.74 | 2523 | 3.00 | 2610 | 3.28 | 2693 | 3.56 |
| 3000 | 2318 | 2091 | 1.82 | 2133 | 1.94 | 2174 | 2.06 | 2255 | 2.29 | 2337 | 2.52 | 2418 | 2.76 | 2499 | 3.01 | 2581 | 3.28 | 2663 | 3.55 | 2744 | 3.84 |
| 3200 | 2472 | 2187 | 2.07 | 2226 | 2.20 | 2265 | 2.32 | 2342 | 2.57 | 2418 | 2.82 | 2494 | 3.06 | 2570 | 3.32 | 2647 | 3.58 | 2723 | 3.87 | 2800 | 4.16 |
| 3400 | 2627 | 2286 | 2.35 | 2322 | 2.48 | 2359 | 2.62 | 2432 | 2.88 | 2504 | 3.14 | 2576 | 3.40 | 2647 | 3.66 | 2718 | 3.93 | 2790 | 4.21 | 2862 | 4.51 |
| 3600 | 2782 | 2386 | 2.66 | 2421 | 2.80 | 2455 | 2.94 | 2524 | 3.21 | 2593 | 3.49 | 2661 | 3.77 | 2728 | 4.04 | 2796 | 4.32 | 2863 | 4.60 | 2930 | 4.90 |
| 3800 | 2936 | 2488 | 2.99 | 2521 | 3.14 | 2554 | 3.28 | 2619 | 3.58 | 2685 | 3.87 | 2749 | 4.17 | 2813 | 4.46 | 2877 | 4.74 | 2941 | 5.03 | 3005 | 5.33 |
| 4000 | 3091 | 2592 | 3.36 | 2623 | 3.51 | 2654 | 3.67 | 2717 | 3.97 | 2779 | 4.28 | 2840 | 4.59 | 2902 | 4.90 | 2962 | 5.20 | 3023 | 5.51 | 3083 | 5.81 |
| 4200 | 3245 | 2696 | 3.76 | 2726 | 3.92 | 2756 | 4.08 | 2815 | 4.40 | 2874 | 4.72 | 2933 | 5.04 | 2992 | 5.37 | 3050 | 5.70 | 3108 | 6.01 | 3166 | 6.33 |
| 4400 | 3400 | 2801 | 4.19 | 2830 | 4.36 | 2859 | 4.53 | 2916 | 4.86 | 2973 | 5.20 | 3029 | 5.53 | 3084 | 5.87 | 3140 | 6.21 | 3196 | 6.56 | 3251 | 6.88 |
| 4600 | 3554 | 2908 | 4.67 | 2935 | 4.84 | 2963 | 5.01 | 3017 | 5.36 | 3072 | 5.70 | 3126 | 6.06 | 3179 | 6.41 | 3232 | 6.76 | 3285 | 7.12 | 3339 | 7.48 |
| 4800 | 3709 | 3015 | 5.17 | 3042 | 5.35 | 3068 | 5.53 | 3120 | 5.89 | 3173 | 6.26 | 3224 | 6.62 | 3275 | 6.98 | 3327 | 7.35 | 3378 | 7.72 | 3428 | 8.09 |
| 5000 | 3863 | 3123 | 5.72 | 3149 | 5.90 | 3174 | 6.09 | 3225 | 6.47 | 3274 | 6.84 | 3324 | 7.22 | 3374 | 7.60 | 3423 | 7.98 | 3472 | 8.36 | 3521 | 8.75 |
| 5200 | 4018 | 3232 | 6.31 | 3257 | 6.50 | 3281 | 6.69 | 3329 | 7.08 | 3377 | 7.47 | 3425 | 7.86 | 3473 | 8.25 | 3520 | 8.65 | | | | |
| 5400 | 4172 | 3342 | 6.94 | 3365 | 7.14 | 3388 | 7.33 | 3435 | 7.74 | 3482 | 8.14 | 3527 | 8.54 | | | | | | | | |
| 5600 | 4327 | 3452 | 7.61 | 3474 | 7.82 | 3497 | 8.02 | 3542 | 8.44 | | | | | | | | | | | | |

| Volume | O.Vel | 6-1/2"SP | | 7"SP | | 7-1/2"SP | | 8"SP | | 8-1/2"SP | | 9"SP | | 9-1/2"SP | | 10"SP | | 10-1/2"SP | | 11"SP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CFM | FPM | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 2200 | 1700 | 2647 | 3.06 | 2730 | 3.31 | 2812 | 3.58 | | | | | | | | | | | | | | |
| 2400 | 1854 | 2686 | 3.30 | 2769 | 3.57 | 2848 | 3.84 | 2927 | 4.11 | 3003 | 4.40 | 3077 | 4.68 | | | | | | | | |
| 2600 | 2009 | 2728 | 3.56 | 2809 | 3.83 | 2889 | 4.12 | 2965 | 4.40 | 3040 | 4.70 | 3113 | 4.99 | 3184 | 5.29 | 3255 | 5.60 | 3323 | 5.91 | | |
| 2800 | 2163 | 2774 | 3.84 | 2853 | 4.12 | 2930 | 4.41 | 3007 | 4.72 | 3079 | 5.02 | 3152 | 5.32 | 3223 | 5.64 | 3291 | 5.95 | 3359 | 6.27 | 3424 | 6.59 |
| 3000 | 2318 | 2824 | 4.14 | 2902 | 4.44 | 2977 | 4.74 | 3050 | 5.04 | 3122 | 5.36 | 3193 | 5.67 | 3262 | 5.99 | 3332 | 6.33 | 3397 | 6.65 | 3464 | 6.99 |
| 3200 | 2472 | 2877 | 4.46 | 2952 | 4.77 | 3026 | 5.08 | 3099 | 5.40 | 3169 | 5.72 | 3238 | 6.05 | 3307 | 6.39 | 3372 | 6.71 | 3438 | 7.06 | 3502 | 7.40 |
| 3400 | 2627 | 2934 | 4.81 | 3006 | 5.13 | 3079 | 5.45 | 3149 | 5.78 | 3218 | 6.11 | 3287 | 6.46 | 3352 | 6.79 | 3418 | 7.14 | 3482 | 7.49 | | |
| 3600 | 2782 | 2998 | 5.20 | 3067 | 5.52 | 3135 | 5.85 | 3202 | 6.18 | 3270 | 6.53 | 3336 | 6.88 | 3401 | 7.23 | 3467 | 7.59 | 3529 | 7.95 | | |
| 3800 | 2936 | 3068 | 5.64 | 3132 | 5.96 | 3197 | 6.28 | 3261 | 6.62 | 3326 | 6.97 | 3390 | 7.33 | 3454 | 7.69 | 3516 | 8.06 | | | | |
| 4000 | 3091 | 3144 | 6.12 | 3204 | 6.44 | 3264 | 6.77 | 3326 | 7.11 | 3387 | 7.46 | 3448 | 7.82 | 3509 | 8.19 | | | | | | |
| 4200 | 3245 | 3223 | 6.65 | 3281 | 6.97 | 3338 | 7.30 | 3395 | 7.64 | 3453 | 7.99 | 3511 | 8.35 | | | | | | | | |
| 4400 | 3400 | 3306 | 7.21 | 3361 | 7.55 | 3415 | 7.88 | 3470 | 8.23 | 3525 | 8.58 | | | | | | | | | | |
| 4600 | 3554 | 3391 | 7.82 | 3444 | 8.17 | 3496 | 8.52 | | | | | | | | | | | | | | |
| 4800 | 3709 | 3480 | 8.47 | 3530 | 8.82 | | | | | | | | | | | | | | | | |

The BHP shown does not include belt drive losses.

The performance shown is for fan with outlet duct.



NORTHERN BLOWER®

Wheel Diameter = 16.50 in.
Outlet Area = 1.56 sq. ft. inside
Maximum BHP = .324 x $(RPM/1000)^3$
Tip Speed, fpm = 4.32 x RPM

| | |
|---|---|
| Class I | RPM 2471 |
| Class II | RPM 3219 |

Size

# 1650 SISW

## Design 7620 Centrifugal BI Fans

| Volume | O.Vel | 1/4"SP | | 3/8"SP | | 1/2"SP | | 5/8"SP | | 3/4"SP | | 7/8"SP | | 1"SP | | 1-1/4"SP | | 1-1/2"SP | | 1-3/4"SP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CFM | FPM | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 800 | 511 | 523 | 0.04 | 605 | 0.06 | 678 | 0.09 | 744 | 0.11 | | | | | | | | | | | | |
| 1000 | 639 | 578 | 0.06 | 646 | 0.08 | 713 | 0.11 | 775 | 0.13 | 834 | 0.16 | 888 | 0.19 | 940 | 0.22 | | | | | | |
| 1200 | 766 | 644 | 0.09 | 700 | 0.11 | 757 | 0.13 | 813 | 0.16 | 868 | 0.19 | 920 | 0.22 | 970 | 0.25 | 1062 | 0.32 | 1148 | 0.39 | | |
| 1400 | 894 | 715 | 0.12 | 764 | 0.14 | 813 | 0.17 | 861 | 0.20 | 910 | 0.23 | 958 | 0.26 | 1005 | 0.30 | 1094 | 0.37 | 1177 | 0.45 | 1254 | 0.52 |
| 1600 | 1022 | 791 | 0.15 | 834 | 0.19 | 877 | 0.22 | 919 | 0.25 | 961 | 0.28 | 1004 | 0.31 | 1046 | 0.35 | 1131 | 0.43 | 1210 | 0.51 | 1284 | 0.59 |
| 1800 | 1149 | 869 | 0.20 | 908 | 0.24 | 946 | 0.27 | 984 | 0.31 | 1022 | 0.34 | 1059 | 0.38 | 1097 | 0.41 | 1172 | 0.49 | 1247 | 0.58 | 1320 | 0.67 |
| 2000 | 1277 | 949 | 0.26 | 984 | 0.30 | 1019 | 0.34 | 1053 | 0.38 | 1087 | 0.41 | 1122 | 0.45 | 1155 | 0.49 | 1223 | 0.57 | 1291 | 0.66 | 1359 | 0.75 |
| 2200 | 1405 | 1030 | 0.33 | 1062 | 0.37 | 1094 | 0.41 | 1126 | 0.45 | 1157 | 0.50 | 1188 | 0.54 | 1219 | 0.58 | 1280 | 0.67 | 1342 | 0.76 | 1403 | 0.85 |
| 2400 | 1533 | 1112 | 0.41 | 1142 | 0.45 | 1171 | 0.50 | 1200 | 0.55 | 1229 | 0.59 | 1258 | 0.64 | 1287 | 0.69 | 1343 | 0.78 | 1399 | 0.87 | 1456 | 0.97 |
| 2600 | 1660 | 1195 | 0.50 | 1222 | 0.55 | 1250 | 0.60 | 1277 | 0.65 | 1304 | 0.70 | 1330 | 0.75 | 1357 | 0.80 | 1410 | 0.90 | 1462 | 1.00 | 1514 | 1.10 |
| 2800 | 1788 | 1279 | 0.61 | 1304 | 0.67 | 1330 | 0.72 | 1355 | 0.77 | 1380 | 0.82 | 1405 | 0.88 | 1430 | 0.93 | 1479 | 1.04 | 1528 | 1.15 | 1576 | 1.26 |
| 3000 | 1916 | 1363 | 0.74 | 1387 | 0.79 | 1411 | 0.85 | 1434 | 0.91 | 1458 | 0.96 | 1481 | 1.02 | 1504 | 1.08 | 1550 | 1.19 | 1596 | 1.31 | 1642 | 1.43 |
| 3200 | 2043 | 1448 | 0.88 | 1470 | 0.94 | 1493 | 1.00 | 1515 | 1.06 | 1537 | 1.12 | 1559 | 1.18 | 1581 | 1.24 | 1624 | 1.36 | 1667 | 1.49 | 1710 | 1.61 |
| 3400 | 2171 | 1533 | 1.04 | 1554 | 1.10 | 1575 | 1.16 | 1596 | 1.23 | 1617 | 1.29 | 1637 | 1.35 | 1658 | 1.42 | 1699 | 1.55 | 1740 | 1.68 | 1780 | 1.81 |
| 3600 | 2299 | 1618 | 1.22 | 1638 | 1.28 | 1658 | 1.35 | 1678 | 1.42 | 1697 | 1.48 | 1717 | 1.55 | 1736 | 1.62 | 1775 | 1.75 | 1814 | 1.89 | 1852 | 2.03 |
| 3800 | 2426 | 1704 | 1.41 | 1723 | 1.48 | 1741 | 1.55 | 1760 | 1.62 | 1779 | 1.69 | 1797 | 1.77 | 1816 | 1.84 | 1853 | 1.98 | 1890 | 2.13 | 1926 | 2.27 |
| 4000 | 2554 | 1790 | 1.64 | 1807 | 1.71 | 1826 | 1.78 | 1843 | 1.85 | 1861 | 1.93 | 1879 | 2.00 | 1896 | 2.08 | 1931 | 2.23 | 1966 | 2.38 | 2001 | 2.53 |
| 4200 | 2682 | 1875 | 1.88 | 1893 | 1.95 | 1910 | 2.03 | 1927 | 2.11 | 1943 | 2.18 | 1960 | 2.26 | 1977 | 2.34 | 2011 | 2.50 | 2044 | 2.66 | 2077 | 2.82 |
| 4400 | 2810 | 1961 | 2.14 | 1978 | 2.22 | 1994 | 2.30 | 2011 | 2.38 | 2027 | 2.46 | 2043 | 2.55 | 2059 | 2.63 | 2091 | 2.79 | 2123 | 2.96 | 2154 | 3.12 |
| 4600 | 2937 | 2047 | 2.43 | 2063 | 2.52 | 2079 | 2.60 | 2095 | 2.68 | 2110 | 2.77 | 2125 | 2.85 | 2141 | 2.94 | 2171 | 3.11 | 2202 | 3.28 | 2232 | 3.46 |
| 4800 | 3065 | 2134 | 2.75 | 2149 | 2.84 | 2164 | 2.92 | 2179 | 3.01 | 2194 | 3.10 | 2209 | 3.18 | 2223 | 3.27 | 2253 | 3.45 | 2282 | 3.63 | 2311 | 3.81 |
| 5200 | 3320 | 2306 | 3.46 | 2321 | 3.56 | 2335 | 3.65 | 2349 | 3.74 | 2363 | 3.84 | 2376 | 3.94 | 2390 | 4.03 | 2417 | 4.22 | 2444 | 4.41 | 2471 | 4.61 |
| 5600 | 3576 | 2480 | 4.29 | 2493 | 4.39 | 2506 | 4.49 | 2519 | 4.59 | 2532 | 4.70 | 2545 | 4.80 | 2558 | 4.90 | 2582 | 5.10 | 2608 | 5.32 | 2632 | 5.52 |
| 6000 | 3831 | 2653 | 5.24 | 2666 | 5.35 | 2678 | 5.46 | 2690 | 5.57 | 2702 | 5.68 | 2714 | 5.79 | 2726 | 5.90 | 2749 | 6.12 | 2773 | 6.34 | 2796 | 6.56 |
| 6400 | 4087 | 2827 | 6.33 | 2838 | 6.45 | 2850 | 6.56 | 2862 | 6.68 | 2873 | 6.80 | 2884 | 6.91 | 2895 | 7.03 | 2918 | 7.27 | 2939 | 7.49 | 2961 | 7.73 |
| 6800 | 4342 | 3001 | 7.56 | 3012 | 7.68 | 3023 | 7.81 | 3034 | 7.94 | 3044 | 8.06 | 3055 | 8.18 | 3066 | 8.30 | 3086 | 8.55 | 3107 | 8.80 | 3127 | 9.04 |
| 7200 | 4598 | 3175 | 8.95 | 3185 | 9.07 | 3195 | 9.21 | 3206 | 9.34 | 3216 | 9.47 | | | | | | | | | | |

| Volume | O.Vel | 2"SP | | 2-1/4"SP | | 2-1/2"SP | | 3"SP | | 3-1/2"SP | | 4"SP | | 4-1/2"SP | | 5"SP | | 5-1/2"SP | | 6"SP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CFM | FPM | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 1400 | 894 | 1327 | 0.61 | | | | | | | | | | | | | | | | | | |
| 1600 | 1022 | 1356 | 0.68 | 1423 | 0.77 | 1488 | 0.86 | | | | | | | | | | | | | | |
| 1800 | 1149 | 1388 | 0.76 | 1454 | 0.86 | 1517 | 0.96 | 1637 | 1.16 | 1747 | 1.37 | | | | | | | | | | |
| 2000 | 1277 | 1425 | 0.85 | 1488 | 0.95 | 1549 | 1.06 | 1666 | 1.27 | 1775 | 1.49 | 1877 | 1.73 | | | | | | | | |
| 2200 | 1405 | 1465 | 0.95 | 1526 | 1.06 | 1586 | 1.17 | 1698 | 1.39 | 1805 | 1.63 | 1906 | 1.87 | 2003 | 2.12 | 2094 | 2.39 | | | | |
| 2400 | 1533 | 1512 | 1.07 | 1568 | 1.18 | 1625 | 1.29 | 1735 | 1.53 | 1838 | 1.77 | 1937 | 2.03 | 2031 | 2.29 | 2121 | 2.56 | 2207 | 2.83 | 2291 | 3.12 |
| 2600 | 1660 | 1565 | 1.21 | 1617 | 1.31 | 1670 | 1.43 | 1774 | 1.67 | 1875 | 1.93 | 1971 | 2.19 | 2062 | 2.47 | 2151 | 2.75 | 2236 | 3.03 | 2318 | 3.33 |
| 2800 | 1788 | 1624 | 1.36 | 1672 | 1.47 | 1720 | 1.59 | 1817 | 1.84 | 1914 | 2.10 | 2007 | 2.38 | 2097 | 2.66 | 2184 | 2.95 | 2267 | 3.25 | 2349 | 3.56 |
| 3000 | 1916 | 1687 | 1.54 | 1732 | 1.66 | 1776 | 1.77 | 1866 | 2.02 | 1956 | 2.29 | 2047 | 2.57 | 2134 | 2.87 | 2219 | 3.17 | 2300 | 3.47 | 2379 | 3.79 |
| 3200 | 2043 | 1752 | 1.74 | 1795 | 1.86 | 1837 | 1.98 | 1920 | 2.23 | 2005 | 2.50 | 2089 | 2.79 | 2174 | 3.09 | 2257 | 3.40 | 2337 | 3.72 | 2414 | 4.05 |
| 3400 | 2171 | 1820 | 1.94 | 1860 | 2.08 | 1900 | 2.21 | 1979 | 2.47 | 2058 | 2.74 | 2137 | 3.02 | 2217 | 3.33 | 2296 | 3.65 | 2374 | 3.98 | 2451 | 4.32 |
| 3600 | 2299 | 1890 | 2.17 | 1928 | 2.31 | 1966 | 2.45 | 2041 | 2.73 | 2115 | 3.00 | 2190 | 3.29 | 2264 | 3.60 | 2340 | 3.92 | 2415 | 4.26 | 2489 | 4.60 |
| 3800 | 2426 | 1962 | 2.42 | 1998 | 2.56 | 2034 | 2.71 | 2105 | 3.01 | 2176 | 3.30 | 2246 | 3.59 | 2317 | 3.90 | 2387 | 4.22 | 2459 | 4.56 | 2530 | 4.91 |
| 4000 | 2554 | 2036 | 2.69 | 2070 | 2.84 | 2104 | 2.99 | 2172 | 3.31 | 2240 | 3.61 | 2306 | 3.92 | 2373 | 4.23 | 2440 | 4.55 | 2507 | 4.89 | 2575 | 5.25 |
| 4200 | 2682 | 2110 | 2.97 | 2143 | 3.14 | 2175 | 3.30 | 2241 | 3.63 | 2305 | 3.95 | 2369 | 4.27 | 2432 | 4.59 | 2496 | 4.92 | 2559 | 5.26 | 2623 | 5.62 |
| 4400 | 2810 | 2186 | 3.29 | 2217 | 3.46 | 2248 | 3.63 | 2310 | 3.97 | 2372 | 4.31 | 2433 | 4.65 | 2494 | 4.98 | 2555 | 5.32 | 2615 | 5.66 | 2676 | 6.02 |
| 4600 | 2937 | 2262 | 3.63 | 2293 | 3.80 | 2323 | 3.98 | 2382 | 4.33 | 2441 | 4.69 | 2500 | 5.05 | 2558 | 5.40 | 2616 | 5.74 | 2674 | 6.10 | 2732 | 6.46 |
| 4800 | 3065 | 2340 | 3.99 | 2369 | 4.17 | 2398 | 4.36 | 2455 | 4.72 | 2512 | 5.09 | 2568 | 5.47 | 2624 | 5.84 | 2680 | 6.20 | 2736 | 6.56 | 2791 | 6.93 |
| 5200 | 3320 | 2497 | 4.80 | 2524 | 5.00 | 2551 | 5.19 | 2604 | 5.59 | 2656 | 5.99 | 2709 | 6.39 | 2761 | 6.79 | 2812 | 7.19 | 2864 | 7.59 | 2916 | 7.98 |
| 5600 | 3576 | 2657 | 5.73 | 2682 | 5.94 | 2707 | 6.15 | 2756 | 6.57 | 2805 | 6.99 | 2854 | 7.42 | 2902 | 7.85 | 2950 | 8.28 | 2999 | 8.71 | 3047 | 9.15 |
| 6000 | 3831 | 2819 | 6.78 | 2842 | 7.00 | 2866 | 7.23 | 2912 | 7.68 | 2957 | 8.12 | 3003 | 8.58 | 3049 | 9.04 | 3093 | 9.49 | 3138 | 9.95 | 3183 | 10.42 |
| 6400 | 4087 | 2983 | 7.97 | 3004 | 8.20 | 3026 | 8.44 | 3069 | 8.91 | 3113 | 9.40 | 3155 | 9.87 | 3198 | 10.36 | | | | | | |
| 6800 | 4342 | 3148 | 9.29 | 3168 | 9.55 | 3188 | 9.79 | | | | | | | | | | | | | | |

| Volume | O.Vel | 6-1/2"SP | | 7"SP | | 7-1/2"SP | | 8"SP | | 8-1/2"SP | | 9"SP | | 9-1/2"SP | | 10"SP | | 10-1/2"SP | | 11"SP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CFM | FPM | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 2600 | 1660 | 2397 | 3.63 | 2475 | 3.94 | | | | | | | | | | | | | | | | |
| 2800 | 1788 | 2426 | 3.87 | 2501 | 4.18 | 2575 | 4.50 | 2648 | 4.84 | | | | | | | | | | | | |
| 3000 | 1916 | 2456 | 4.11 | 2531 | 4.44 | 2604 | 4.78 | 2674 | 5.11 | 2743 | 5.46 | 2810 | 5.81 | 2876 | 6.17 | | | | | | |
| 3200 | 2043 | 2490 | 4.38 | 2562 | 4.72 | 2633 | 5.06 | 2704 | 5.41 | 2772 | 5.77 | 2837 | 6.12 | 2904 | 6.50 | 2965 | 6.86 | 3029 | 7.25 | 3088 | 7.63 |
| 3400 | 2171 | 2524 | 4.66 | 2596 | 5.01 | 2666 | 5.36 | 2735 | 5.73 | 2801 | 6.09 | 2867 | 6.46 | 2931 | 6.84 | 2993 | 7.22 | 3055 | 7.61 | 3115 | 8.00 |
| 3600 | 2299 | 2561 | 4.96 | 2632 | 5.32 | 2702 | 5.69 | 2768 | 6.05 | 2833 | 6.43 | 2899 | 6.82 | 2961 | 7.20 | 3024 | 7.60 | 3084 | 7.99 | 3144 | 8.40 |
| 3800 | 2427 | 2600 | 5.28 | 2670 | 5.65 | 2737 | 6.02 | 2803 | 6.40 | 2868 | 6.79 | 2931 | 7.18 | 2993 | 7.58 | 3055 | 7.99 | 3114 | 8.39 | 3174 | 8.81 |
| 4000 | 2554 | 2643 | 5.62 | 2709 | 5.99 | 2775 | 6.38 | 2840 | 6.77 | 2905 | 7.18 | 2966 | 7.57 | 3027 | 7.98 | 3087 | 8.39 | 3146 | 8.81 | 3204 | 9.24 |
| 4200 | 2682 | 2688 | 5.99 | 2752 | 6.37 | 2816 | 6.76 | 2879 | 7.16 | 2943 | 7.58 | 3003 | 7.98 | 3064 | 8.41 | 3122 | 8.83 | 3180 | 9.25 | | |
| 4400 | 2810 | 2737 | 6.39 | 2798 | 6.77 | 2859 | 7.17 | 2921 | 7.58 | 2982 | 7.99 | 3041 | 8.41 | 3101 | 8.85 | 3159 | 9.28 | 3216 | 9.72 | | |
| 4600 | 2937 | 2790 | 6.83 | 2848 | 7.21 | 2906 | 7.61 | 2965 | 8.02 | 3024 | 8.44 | 3082 | 8.87 | 3140 | 9.31 | 3197 | 9.76 | | | | |
| 4800 | 3065 | 2846 | 7.31 | 2902 | 7.69 | 2957 | 8.09 | 3013 | 8.50 | 3070 | 8.93 | 3125 | 9.36 | 3181 | 9.80 | | | | | | |
| 5200 | 3320 | 2967 | 8.37 | 3017 | 8.77 | 3068 | 9.17 | 3119 | 9.58 | 3170 | 10.01 | | | | | | | | | | |
| 5600 | 3576 | 3094 | 9.57 | 3142 | 9.99 | 3189 | 10.41 | | | | | | | | | | | | | | |

The BHP shown does not include belt drive losses.

The performance shown is for fan with outlet duct.

Wheel Diameter = 18.25 in.
Outlet Area = 1.91 sq. ft. inside
Maximum BHP = .546 x $(RPM/1000)^3$
Tip Speed, fpm = 4.78 x RPM

| | |
|---|---|
| Class I | RPM 2190 |
| Class II | RPM 2854 |

Size

# 1825 SISW

## Design 7620 Centrifugal BI Fans

| Volume | O.Vel | 1/4"SP | | 3/8"SP | | 1/2"SP | | 5/8"SP | | 3/4"SP | | 7/8"SP | | 1"SP | | 1-1/4"SP | | 1-1/2"SP | | 1-3/4"SP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CFM | FPM | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 1000 | 523 | 471 | 0.05 | 542 | 0.08 | 605 | 0.10 | | | | | | | | | | | | | | |
| 1200 | 628 | 510 | 0.07 | 573 | 0.10 | 632 | 0.12 | 687 | 0.15 | 739 | 0.18 | 788 | 0.22 | | | | | | | | |
| 1400 | 733 | 555 | 0.09 | 610 | 0.12 | 664 | 0.15 | 716 | 0.18 | 764 | 0.21 | 810 | 0.25 | 855 | 0.29 | | | | | | |
| 1600 | 837 | 605 | 0.12 | 653 | 0.15 | 701 | 0.18 | 748 | 0.22 | 795 | 0.25 | 838 | 0.29 | 880 | 0.33 | 959 | 0.41 | 1034 | 0.50 | | |
| 1800 | 942 | 657 | 0.15 | 701 | 0.19 | 743 | 0.22 | 786 | 0.26 | 828 | 0.30 | 870 | 0.34 | 910 | 0.38 | 986 | 0.46 | 1057 | 0.55 | 1124 | 0.65 |
| 2000 | 1046 | 712 | 0.19 | 751 | 0.23 | 790 | 0.27 | 828 | 0.31 | 867 | 0.35 | 905 | 0.39 | 942 | 0.43 | 1015 | 0.52 | 1083 | 0.61 | 1148 | 0.71 |
| 2200 | 1151 | 769 | 0.23 | 804 | 0.28 | 839 | 0.32 | 874 | 0.36 | 909 | 0.41 | 944 | 0.45 | 979 | 0.50 | 1047 | 0.59 | 1113 | 0.69 | 1176 | 0.79 |
| 2400 | 1256 | 827 | 0.29 | 859 | 0.33 | 891 | 0.38 | 923 | 0.43 | 956 | 0.47 | 987 | 0.52 | 1019 | 0.57 | 1083 | 0.67 | 1145 | 0.77 | 1206 | 0.88 |
| 2600 | 1360 | 886 | 0.35 | 915 | 0.40 | 944 | 0.45 | 974 | 0.50 | 1004 | 0.55 | 1034 | 0.60 | 1063 | 0.65 | 1122 | 0.76 | 1181 | 0.87 | 1238 | 0.98 |
| 2800 | 1465 | 945 | 0.42 | 972 | 0.47 | 999 | 0.52 | 1027 | 0.58 | 1055 | 0.63 | 1082 | 0.69 | 1110 | 0.74 | 1165 | 0.85 | 1219 | 0.97 | 1274 | 1.09 |
| 3000 | 1570 | 1005 | 0.50 | 1030 | 0.56 | 1056 | 0.61 | 1081 | 0.67 | 1107 | 0.72 | 1133 | 0.78 | 1159 | 0.84 | 1210 | 0.96 | 1261 | 1.08 | 1312 | 1.20 |
| 3200 | 1674 | 1066 | 0.60 | 1089 | 0.65 | 1113 | 0.71 | 1137 | 0.77 | 1161 | 0.83 | 1185 | 0.89 | 1209 | 0.95 | 1257 | 1.08 | 1306 | 1.21 | 1353 | 1.34 |
| 3400 | 1779 | 1127 | 0.70 | 1149 | 0.76 | 1171 | 0.82 | 1193 | 0.88 | 1216 | 0.94 | 1238 | 1.01 | 1261 | 1.07 | 1306 | 1.21 | 1352 | 1.34 | 1397 | 1.48 |
| 3600 | 1884 | 1189 | 0.82 | 1209 | 0.88 | 1229 | 0.94 | 1250 | 1.01 | 1272 | 1.07 | 1293 | 1.14 | 1314 | 1.21 | 1357 | 1.35 | 1400 | 1.49 | 1443 | 1.63 |
| 3800 | 1988 | 1250 | 0.95 | 1269 | 1.01 | 1289 | 1.08 | 1308 | 1.14 | 1328 | 1.21 | 1349 | 1.28 | 1369 | 1.35 | 1409 | 1.50 | 1450 | 1.65 | 1491 | 1.80 |
| 4000 | 2093 | 1312 | 1.09 | 1330 | 1.16 | 1349 | 1.23 | 1367 | 1.29 | 1386 | 1.37 | 1405 | 1.44 | 1424 | 1.51 | 1462 | 1.66 | 1501 | 1.82 | 1540 | 1.98 |
| 4400 | 2302 | 1437 | 1.43 | 1453 | 1.50 | 1469 | 1.57 | 1486 | 1.64 | 1503 | 1.72 | 1520 | 1.80 | 1537 | 1.88 | 1572 | 2.04 | 1607 | 2.20 | 1642 | 2.37 |
| 4800 | 2511 | 1562 | 1.82 | 1576 | 1.90 | 1591 | 1.98 | 1606 | 2.06 | 1622 | 2.14 | 1637 | 2.22 | 1653 | 2.30 | 1684 | 2.48 | 1716 | 2.65 | 1748 | 2.84 |
| 5200 | 2721 | 1687 | 2.29 | 1701 | 2.37 | 1714 | 2.45 | 1728 | 2.54 | 1742 | 2.63 | 1756 | 2.71 | 1770 | 2.80 | 1799 | 2.99 | 1828 | 3.17 | 1857 | 3.37 |
| 5600 | 2930 | 1812 | 2.83 | 1825 | 2.92 | 1838 | 3.01 | 1851 | 3.10 | 1864 | 3.19 | 1877 | 3.28 | 1890 | 3.38 | 1916 | 3.57 | 1943 | 3.77 | 1970 | 3.97 |
| 6000 | 3139 | 1938 | 3.45 | 1950 | 3.55 | 1962 | 3.64 | 1974 | 3.74 | 1986 | 3.84 | 1998 | 3.93 | 2010 | 4.03 | 2034 | 4.24 | 2059 | 4.44 | 2084 | 4.66 |
| 6400 | 3349 | 2064 | 4.16 | 2076 | 4.26 | 2087 | 4.36 | 2098 | 4.47 | 2109 | 4.57 | 2120 | 4.67 | 2132 | 4.78 | 2154 | 4.99 | 2177 | 5.21 | 2200 | 5.43 |
| 6800 | 3558 | 2190 | 4.96 | 2201 | 5.07 | 2212 | 5.18 | 2223 | 5.29 | 2233 | 5.39 | 2243 | 5.50 | 2254 | 5.62 | 2275 | 5.84 | 2296 | 6.07 | 2318 | 6.30 |
| 7200 | 3767 | 2317 | 5.86 | 2327 | 5.98 | 2337 | 6.09 | 2347 | 6.21 | 2357 | 6.32 | 2367 | 6.43 | 2377 | 6.55 | 2396 | 6.79 | 2416 | 7.02 | 2437 | 7.27 |
| 7600 | 3977 | 2443 | 6.87 | 2453 | 6.99 | 2463 | 7.11 | 2472 | 7.23 | 2482 | 7.35 | 2491 | 7.47 | 2500 | 7.59 | 2519 | 7.84 | 2537 | 8.09 | 2556 | 8.34 |
| 8000 | 4186 | 2570 | 7.98 | 2579 | 8.11 | 2588 | 8.24 | 2597 | 8.36 | 2607 | 8.49 | 2615 | 8.62 | 2624 | 8.74 | 2642 | 9.00 | 2659 | 9.26 | 2677 | 9.52 |
| 8400 | 4395 | 2697 | 9.22 | 2705 | 9.35 | 2714 | 9.48 | 2723 | 9.61 | 2732 | 9.75 | 2740 | 9.88 | 2749 | 10.01 | 2765 | 10.28 | 2782 | 10.55 | 2799 | 10.83 |
| 8800 | 4604 | 2824 | 10.57 | 2832 | 10.71 | 2840 | 10.84 | 2848 | 10.98 | 2857 | 11.13 | 2865 | 11.27 | 2873 | 11.41 | 2889 | 11.68 | 2905 | 11.96 | 2921 | 12.25 |

| Volume | O.Vel | 2"SP | | 2-1/4"SP | | 2-1/2"SP | | 3"SP | | 3-1/2"SP | | 4"SP | | 4-1/2"SP | | 5"SP | | 5-1/2"SP | | 6"SP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CFM | FPM | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 1800 | 942 | 1190 | 0.75 | | | | | | | | | | | | | | | | | | |
| 2000 | 1046 | 1210 | 0.82 | 1270 | 0.93 | | | | | | | | | | | | | | | | |
| 2200 | 1151 | 1235 | 0.90 | 1293 | 1.01 | 1349 | 1.13 | 1456 | 1.38 | | | | | | | | | | | | |
| 2400 | 1256 | 1264 | 0.99 | 1320 | 1.10 | 1373 | 1.22 | 1476 | 1.48 | 1574 | 1.75 | | | | | | | | | | |
| 2600 | 1360 | 1295 | 1.09 | 1348 | 1.21 | 1400 | 1.33 | 1500 | 1.59 | 1595 | 1.87 | 1685 | 2.15 | | | | | | | | |
| 2800 | 1465 | 1327 | 1.20 | 1379 | 1.33 | 1430 | 1.45 | 1527 | 1.72 | 1618 | 2.00 | 1707 | 2.29 | 1791 | 2.60 | | | | | | |
| 3000 | 1570 | 1362 | 1.33 | 1413 | 1.46 | 1462 | 1.59 | 1556 | 1.86 | 1646 | 2.14 | 1730 | 2.44 | 1813 | 2.76 | 1893 | 3.09 | 1971 | 3.43 | | |
| 3200 | 1674 | 1401 | 1.47 | 1448 | 1.60 | 1495 | 1.74 | 1587 | 2.01 | 1674 | 2.30 | 1758 | 2.61 | 1837 | 2.93 | 1915 | 3.26 | 1990 | 3.61 | 2063 | 3.97 |
| 3400 | 1779 | 1442 | 1.62 | 1487 | 1.75 | 1531 | 1.90 | 1619 | 2.18 | 1705 | 2.48 | 1786 | 2.79 | 1865 | 3.12 | 1940 | 3.46 | 2013 | 3.81 | 2085 | 4.17 |
| 3600 | 1884 | 1485 | 1.78 | 1528 | 1.92 | 1570 | 2.07 | 1654 | 2.37 | 1737 | 2.68 | 1816 | 2.99 | 1893 | 3.32 | 1968 | 3.67 | 2039 | 4.03 | 2108 | 4.40 |
| 3800 | 1988 | 1531 | 1.95 | 1571 | 2.10 | 1611 | 2.25 | 1691 | 2.57 | 1771 | 2.89 | 1848 | 3.21 | 1923 | 3.55 | 1996 | 3.90 | 2066 | 4.26 | 2134 | 4.63 |
| 4000 | 2093 | 1578 | 2.13 | 1617 | 2.29 | 1655 | 2.45 | 1731 | 2.78 | 1806 | 3.11 | 1881 | 3.45 | 1955 | 3.79 | 2026 | 4.14 | 2095 | 4.51 | 2162 | 4.89 |
| 4400 | 2302 | 1677 | 2.55 | 1712 | 2.72 | 1747 | 2.90 | 1816 | 3.25 | 1885 | 3.60 | 1954 | 3.96 | 2022 | 4.33 | 2090 | 4.70 | 2156 | 5.08 | 2221 | 5.47 |
| 4800 | 2511 | 1780 | 3.02 | 1812 | 3.21 | 1844 | 3.40 | 1908 | 3.78 | 1972 | 4.16 | 2035 | 4.55 | 2098 | 4.94 | 2161 | 5.33 | 2223 | 5.73 | 2285 | 6.14 |
| 5200 | 2721 | 1887 | 3.56 | 1916 | 3.76 | 1946 | 3.96 | 2005 | 4.37 | 2064 | 4.78 | 2123 | 5.20 | 2181 | 5.61 | 2239 | 6.04 | 2297 | 6.46 | 2355 | 6.89 |
| 5600 | 2930 | 1997 | 4.18 | 2024 | 4.39 | 2051 | 4.60 | 2106 | 5.03 | 2161 | 5.47 | 2215 | 5.92 | 2270 | 6.36 | 2324 | 6.81 | 2378 | 7.26 | 2432 | 7.71 |
| 6000 | 3139 | 2109 | 4.87 | 2134 | 5.10 | 2160 | 5.32 | 2210 | 5.78 | 2261 | 6.24 | 2312 | 6.71 | 2363 | 7.18 | 2414 | 7.66 | 2465 | 8.13 | 2515 | 8.62 |
| 6400 | 3349 | 2224 | 5.66 | 2247 | 5.89 | 2271 | 6.13 | 2318 | 6.61 | 2366 | 7.10 | 2413 | 7.59 | 2461 | 8.09 | 2508 | 8.59 | 2556 | 9.10 | 2604 | 9.61 |
| 6800 | 3558 | 2339 | 6.54 | 2361 | 6.78 | 2383 | 7.02 | 2428 | 7.52 | 2472 | 8.03 | 2517 | 8.56 | 2562 | 9.08 | 2606 | 9.61 | 2651 | 10.14 | 2696 | 10.68 |
| 7200 | 3767 | 2457 | 7.51 | 2477 | 7.77 | 2498 | 8.02 | 2540 | 8.54 | 2581 | 9.07 | 2623 | 9.61 | 2665 | 10.17 | 2708 | 10.72 | 2750 | 11.28 | 2792 | 11.85 |
| 7600 | 3977 | 2576 | 8.60 | 2595 | 8.86 | 2614 | 9.12 | 2653 | 9.66 | 2692 | 10.22 | 2732 | 10.78 | 2771 | 11.35 | 2812 | 11.94 | 2851 | 12.52 | | |
| 8000 | 4186 | 2695 | 9.79 | 2713 | 10.07 | 2731 | 10.34 | 2768 | 10.90 | 2805 | 11.47 | 2842 | 12.05 | | | | | | | | |
| 8400 | 4395 | 2815 | 11.10 | 2833 | 11.38 | 2850 | 11.67 | | | | | | | | | | | | | | |

| Volume | O.Vel | 6-1/2"SP | | 7"SP | | 7-1/2"SP | | 8"SP | | 8-1/2"SP | | 9"SP | | 9-1/2"SP | | 10"SP | | 10-1/2"SP | | 11"SP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CFM | FPM | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 3400 | 1779 | 2155 | 4.55 | 2223 | 4.93 | | | | | | | | | | | | | | | | |
| 3600 | 1884 | 2176 | 4.77 | 2242 | 5.16 | 2308 | 5.56 | 2373 | 5.98 | | | | | | | | | | | | |
| 3800 | 1988 | 2200 | 5.02 | 2265 | 5.41 | 2329 | 5.82 | 2391 | 6.24 | 2452 | 6.66 | | | | | | | | | | |
| 4000 | 2093 | 2226 | 5.28 | 2290 | 5.68 | 2353 | 6.10 | 2413 | 6.52 | 2473 | 6.95 | 2533 | 7.40 | 2590 | 7.84 | | | | | | |
| 4400 | 2302 | 2284 | 5.87 | 2345 | 6.28 | 2406 | 6.71 | 2463 | 7.14 | 2520 | 7.58 | 2578 | 8.04 | 2632 | 8.49 | 2687 | 8.97 | 2741 | 9.44 | 2795 | 9.94 |
| 4800 | 2511 | 2345 | 6.55 | 2405 | 6.98 | 2463 | 7.41 | 2520 | 7.85 | 2575 | 8.30 | 2630 | 8.77 | 2683 | 9.24 | 2735 | 9.72 | 2787 | 10.21 | 2838 | 10.71 |
| 5200 | 2721 | 2412 | 7.32 | 2469 | 7.76 | 2525 | 8.21 | 2581 | 8.66 | 2634 | 9.12 | 2687 | 9.59 | 2740 | 10.08 | 2790 | 10.57 | 2841 | 11.07 | | |
| 5600 | 2930 | 2485 | 8.17 | 2539 | 8.64 | 2592 | 9.10 | 2645 | 9.57 | 2697 | 10.05 | 2748 | 10.53 | 2799 | 11.02 | 2849 | 11.53 | | | | |
| 6000 | 3139 | 2565 | 9.10 | 2615 | 9.58 | 2665 | 10.08 | 2715 | 10.58 | 2765 | 11.07 | 2814 | 11.57 | | | | | | | | |
| 6400 | 3349 | 2650 | 10.11 | 2697 | 10.62 | 2745 | 11.15 | 2791 | 11.66 | 2838 | 12.18 | | | | | | | | | | |
| 6800 | 3558 | 2740 | 11.21 | 2785 | 11.75 | 2829 | 12.30 | | | | | | | | | | | | | | |
| 7200 | 3767 | 2834 | 12.41 | | | | | | | | | | | | | | | | | | |

The BHP shown does not include belt drive losses.

The performance shown is for fan with outlet duct.



NORTHERN BLOWER®

Wheel Diameter = 20.00 in.
Outlet Area = 2.29 sq. ft. inside
Maximum BHP = .863 x $(RPM/1000)^3$
Tip Speed, fpm = 5.24 x RPM

| | |
|---|---|
| Class I | RPM 1996 |
| Class II | RPM 2600 |

Size

# 2000 SISW

## Design 7620 Centrifugal BI Fans

| Volume | O.Vel | 1/4"SP | | 3/8"SP | | 1/2"SP | | 5/8"SP | | 3/4"SP | | 7/8"SP | | 1"SP | | 1-1/4"SP | | 1-1/2"SP | | 1-3/4"SP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CFM | FPM | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 1600 | 697 | 492 | 0.10 | 544 | 0.13 | 596 | 0.17 | 644 | 0.21 | 689 | 0.24 | 732 | 0.29 | 773 | 0.33 | | | | | | |
| 1800 | 784 | 529 | 0.13 | 576 | 0.16 | 622 | 0.20 | 667 | 0.24 | 711 | 0.28 | 752 | 0.32 | 791 | 0.37 | 865 | 0.46 | | | | |
| 2000 | 871 | 567 | 0.15 | 610 | 0.19 | 652 | 0.24 | 694 | 0.28 | 735 | 0.32 | 774 | 0.36 | 812 | 0.41 | 883 | 0.51 | 949 | 0.62 | | |
| 2200 | 958 | 608 | 0.19 | 646 | 0.23 | 685 | 0.28 | 723 | 0.32 | 761 | 0.37 | 798 | 0.41 | 835 | 0.46 | 903 | 0.56 | 968 | 0.67 | 1029 | 0.79 |
| 2400 | 1046 | 650 | 0.23 | 685 | 0.27 | 720 | 0.32 | 756 | 0.37 | 790 | 0.42 | 825 | 0.47 | 860 | 0.52 | 926 | 0.62 | 988 | 0.74 | 1047 | 0.86 |
| 2600 | 1133 | 693 | 0.27 | 725 | 0.32 | 758 | 0.37 | 790 | 0.42 | 823 | 0.48 | 855 | 0.53 | 887 | 0.58 | 950 | 0.69 | 1011 | 0.81 | 1068 | 0.93 |
| 2800 | 1220 | 736 | 0.32 | 766 | 0.37 | 796 | 0.43 | 827 | 0.48 | 857 | 0.54 | 887 | 0.60 | 917 | 0.65 | 976 | 0.77 | 1035 | 0.89 | 1091 | 1.02 |
| 3000 | 1307 | 781 | 0.38 | 809 | 0.44 | 837 | 0.49 | 865 | 0.55 | 893 | 0.61 | 921 | 0.67 | 949 | 0.73 | 1005 | 0.85 | 1060 | 0.98 | 1115 | 1.11 |
| 3200 | 1394 | 826 | 0.45 | 851 | 0.50 | 878 | 0.56 | 904 | 0.63 | 931 | 0.69 | 957 | 0.75 | 984 | 0.82 | 1036 | 0.95 | 1088 | 1.08 | 1140 | 1.21 |
| 3400 | 1481 | 871 | 0.52 | 895 | 0.58 | 920 | 0.64 | 945 | 0.71 | 970 | 0.77 | 995 | 0.84 | 1020 | 0.91 | 1069 | 1.05 | 1118 | 1.18 | 1167 | 1.32 |
| 3600 | 1568 | 917 | 0.60 | 939 | 0.67 | 963 | 0.73 | 986 | 0.80 | 1009 | 0.87 | 1033 | 0.94 | 1057 | 1.01 | 1104 | 1.15 | 1150 | 1.30 | 1197 | 1.45 |
| 3800 | 1656 | 963 | 0.70 | 984 | 0.76 | 1006 | 0.83 | 1028 | 0.90 | 1050 | 0.97 | 1073 | 1.04 | 1095 | 1.12 | 1139 | 1.27 | 1184 | 1.42 | 1228 | 1.57 |
| 4000 | 1743 | 1009 | 0.80 | 1029 | 0.87 | 1050 | 0.94 | 1071 | 1.01 | 1092 | 1.08 | 1113 | 1.16 | 1134 | 1.24 | 1177 | 1.39 | 1219 | 1.55 | 1261 | 1.71 |
| 4400 | 1917 | 1102 | 1.03 | 1121 | 1.10 | 1139 | 1.18 | 1158 | 1.26 | 1177 | 1.34 | 1196 | 1.42 | 1215 | 1.50 | 1253 | 1.67 | 1292 | 1.85 | 1331 | 2.02 |
| 4800 | 2091 | 1196 | 1.31 | 1213 | 1.39 | 1230 | 1.47 | 1247 | 1.55 | 1264 | 1.64 | 1281 | 1.72 | 1299 | 1.81 | 1334 | 1.99 | 1369 | 2.18 | 1404 | 2.37 |
| 5200 | 2265 | 1291 | 1.64 | 1306 | 1.72 | 1321 | 1.81 | 1337 | 1.90 | 1353 | 1.98 | 1368 | 2.08 | 1384 | 2.17 | 1416 | 2.36 | 1449 | 2.56 | 1481 | 2.76 |
| 5600 | 2440 | 1386 | 2.02 | 1400 | 2.11 | 1414 | 2.20 | 1428 | 2.29 | 1443 | 2.39 | 1457 | 2.48 | 1472 | 2.58 | 1501 | 2.79 | 1531 | 2.99 | 1561 | 3.21 |
| 6000 | 2614 | 1481 | 2.45 | 1494 | 2.55 | 1507 | 2.64 | 1520 | 2.74 | 1534 | 2.84 | 1547 | 2.95 | 1561 | 3.05 | 1588 | 3.26 | 1616 | 3.48 | 1644 | 3.71 |
| 6400 | 2788 | 1576 | 2.95 | 1589 | 3.05 | 1601 | 3.15 | 1613 | 3.26 | 1625 | 3.36 | 1638 | 3.47 | 1651 | 3.58 | 1676 | 3.80 | 1702 | 4.03 | 1728 | 4.27 |
| 6800 | 2963 | 1672 | 3.51 | 1683 | 3.62 | 1695 | 3.72 | 1706 | 3.83 | 1718 | 3.95 | 1729 | 4.06 | 1741 | 4.17 | 1765 | 4.41 | 1789 | 4.65 | 1813 | 4.89 |
| 7200 | 3137 | 1767 | 4.13 | 1778 | 4.25 | 1789 | 4.36 | 1800 | 4.48 | 1811 | 4.60 | 1822 | 4.71 | 1833 | 4.83 | 1855 | 5.08 | 1878 | 5.33 | 1900 | 5.58 |
| 7600 | 3311 | 1863 | 4.83 | 1874 | 4.96 | 1884 | 5.08 | 1894 | 5.20 | 1904 | 5.32 | 1915 | 5.45 | 1925 | 5.57 | 1946 | 5.82 | 1967 | 6.08 | 1989 | 6.35 |
| 8000 | 3485 | 1959 | 5.61 | 1969 | 5.74 | 1979 | 5.87 | 1989 | 5.99 | 1998 | 6.12 | 2008 | 6.25 | 2018 | 6.38 | 2037 | 6.64 | 2057 | 6.92 | 2078 | 7.19 |
| 8500 | 3703 | 2079 | 6.70 | 2088 | 6.83 | 2098 | 6.97 | 2107 | 7.10 | 2116 | 7.24 | 2125 | 7.37 | 2134 | 7.51 | 2153 | 7.79 | 2171 | 8.07 | 2190 | 8.36 |
| 9000 | 3921 | 2199 | 7.92 | 2208 | 8.06 | 2217 | 8.20 | 2226 | 8.35 | 2234 | 8.49 | 2243 | 8.63 | 2251 | 8.77 | 2269 | 9.07 | 2286 | 9.36 | 2304 | 9.66 |
| 9500 | 4139 | 2319 | 9.28 | 2328 | 9.42 | 2336 | 9.58 | 2345 | 9.73 | 2353 | 9.88 | 2361 | 10.03 | 2369 | 10.18 | 2385 | 10.48 | 2402 | 10.80 | 2418 | 11.11 |
| 10000 | 4357 | 2440 | 10.79 | 2448 | 10.94 | 2456 | 11.10 | 2464 | 11.26 | 2472 | 11.42 | 2480 | 11.58 | 2487 | 11.74 | 2502 | 12.05 | 2518 | 12.38 | 2533 | 12.70 |
| 10500 | 4575 | 2560 | 12.45 | 2568 | 12.62 | 2575 | 12.78 | 2583 | 12.95 | 2590 | 13.12 | 2598 | 13.29 | | | | | | | | |

| Volume | O.Vel | 2"SP | | 2-1/4"SP | | 2-1/2"SP | | 3"SP | | 3-1/2"SP | | 4"SP | | 4-1/2"SP | | 5"SP | | 5-1/2"SP | | 6"SP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CFM | FPM | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 2400 | 1046 | 1104 | 0.98 | 1159 | 1.12 | | | | | | | | | | | | | | | | |
| 2600 | 1133 | 1123 | 1.06 | 1176 | 1.19 | 1227 | 1.34 | | | | | | | | | | | | | | |
| 2800 | 1220 | 1144 | 1.15 | 1195 | 1.28 | 1245 | 1.43 | 1340 | 1.73 | | | | | | | | | | | | |
| 3000 | 1307 | 1167 | 1.24 | 1217 | 1.38 | 1265 | 1.53 | 1357 | 1.84 | 1445 | 2.17 | | | | | | | | | | |
| 3200 | 1394 | 1190 | 1.35 | 1239 | 1.49 | 1287 | 1.64 | 1377 | 1.96 | 1461 | 2.29 | 1544 | 2.64 | | | | | | | | |
| 3400 | 1481 | 1216 | 1.47 | 1263 | 1.61 | 1309 | 1.77 | 1397 | 2.08 | 1481 | 2.42 | 1560 | 2.78 | 1638 | 3.15 | | | | | | |
| 3600 | 1568 | 1243 | 1.60 | 1289 | 1.75 | 1333 | 1.90 | 1420 | 2.23 | 1502 | 2.57 | 1579 | 2.93 | 1654 | 3.31 | 1727 | 3.70 | 1798 | 4.11 | | |
| 3800 | 1656 | 1272 | 1.73 | 1315 | 1.89 | 1359 | 2.05 | 1443 | 2.38 | 1523 | 2.73 | 1599 | 3.10 | 1672 | 3.48 | 1743 | 3.88 | 1812 | 4.29 | 1880 | 4.72 |
| 4000 | 1743 | 1303 | 1.88 | 1344 | 2.04 | 1386 | 2.21 | 1468 | 2.55 | 1546 | 2.90 | 1621 | 3.27 | 1692 | 3.66 | 1762 | 4.07 | 1829 | 4.49 | 1895 | 4.92 |
| 4400 | 1917 | 1369 | 2.20 | 1407 | 2.38 | 1445 | 2.55 | 1520 | 2.92 | 1594 | 3.29 | 1667 | 3.68 | 1736 | 4.07 | 1803 | 4.49 | 1868 | 4.92 | 1931 | 5.36 |
| 4800 | 2091 | 1439 | 2.56 | 1474 | 2.75 | 1509 | 2.94 | 1579 | 3.33 | 1648 | 3.73 | 1716 | 4.13 | 1783 | 4.55 | 1848 | 4.97 | 1911 | 5.41 | 1972 | 5.87 |
| 5200 | 2265 | 1514 | 2.97 | 1546 | 3.17 | 1579 | 3.38 | 1643 | 3.80 | 1707 | 4.22 | 1771 | 4.65 | 1834 | 5.08 | 1897 | 5.53 | 1958 | 5.98 | 2017 | 6.44 |
| 5600 | 2440 | 1591 | 3.42 | 1622 | 3.64 | 1652 | 3.87 | 1712 | 4.31 | 1771 | 4.76 | 1831 | 5.21 | 1890 | 5.67 | 1949 | 6.14 | 2007 | 6.61 | 2064 | 7.09 |
| 6000 | 2614 | 1671 | 3.93 | 1700 | 4.17 | 1728 | 4.41 | 1784 | 4.88 | 1840 | 5.35 | 1895 | 5.83 | 1951 | 6.32 | 2006 | 6.81 | 2061 | 7.30 | 2115 | 7.80 |
| 6400 | 2788 | 1754 | 4.51 | 1780 | 4.75 | 1806 | 5.00 | 1859 | 5.50 | 1911 | 6.00 | 1964 | 6.51 | 2016 | 7.02 | 2067 | 7.53 | 2119 | 8.05 | 2171 | 8.58 |
| 6800 | 2963 | 1838 | 5.14 | 1862 | 5.40 | 1887 | 5.65 | 1936 | 6.18 | 1986 | 6.71 | 2035 | 7.25 | 2084 | 7.78 | 2133 | 8.33 | 2182 | 8.87 | 2230 | 9.42 |
| 7200 | 3137 | 1923 | 5.84 | 1946 | 6.11 | 1969 | 6.38 | 2016 | 6.93 | 2062 | 7.49 | 2109 | 8.05 | 2155 | 8.62 | 2202 | 9.18 | 2248 | 9.76 | 2294 | 10.34 |
| 7600 | 3311 | 2010 | 6.62 | 2032 | 6.90 | 2053 | 7.17 | 2097 | 7.74 | 2141 | 8.33 | 2186 | 8.92 | 2229 | 9.52 | 2273 | 10.11 | 2317 | 10.71 | 2361 | 11.31 |
| 8000 | 3485 | 2098 | 7.47 | 2118 | 7.76 | 2139 | 8.05 | 2180 | 8.64 | 2222 | 9.24 | 2263 | 9.86 | 2305 | 10.48 | 2347 | 11.11 | 2389 | 11.73 | 2430 | 12.36 |
| 8500 | 3703 | 2209 | 8.65 | 2228 | 8.95 | 2247 | 9.25 | 2286 | 9.87 | 2325 | 10.50 | 2364 | 11.14 | 2403 | 11.80 | 2442 | 12.46 | 2481 | 13.12 | 2521 | 13.78 |
| 9000 | 3921 | 2321 | 9.97 | 2339 | 10.28 | 2357 | 10.60 | 2393 | 11.23 | 2430 | 11.89 | 2466 | 12.57 | 2503 | 13.24 | 2540 | 13.93 | 2577 | 14.63 | | |
| 9500 | 4139 | 2435 | 11.43 | 2451 | 11.75 | 2468 | 12.07 | 2502 | 12.75 | 2537 | 13.43 | 2571 | 14.12 | | | | | | | | |
| 10000 | 4357 | 2549 | 13.03 | 2565 | 13.37 | 2581 | 13.71 | | | | | | | | | | | | | | |

| Volume | O.Vel | 6-1/2"SP | | 7"SP | | 7-1/2"SP | | 8"SP | | 8-1/2"SP | | 9"SP | | 9-1/2"SP | | 10"SP | | 10-1/2"SP | | 11"SP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CFM | FPM | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 4000 | 1743 | 1959 | 5.37 | | | | | | | | | | | | | | | | | | |
| 4400 | 1917 | 1992 | 5.82 | 2053 | 6.30 | 2112 | 6.78 | 2169 | 7.27 | | | | | | | | | | | | |
| 4800 | 2091 | 2031 | 6.34 | 2089 | 6.82 | 2146 | 7.32 | 2201 | 7.82 | 2256 | 8.34 | 2311 | 8.88 | 2363 | 9.41 | | | | | | |
| 5200 | 2265 | 2075 | 6.92 | 2131 | 7.41 | 2185 | 7.92 | 2240 | 8.44 | 2292 | 8.97 | 2343 | 9.51 | 2395 | 10.06 | 2445 | 10.62 | 2495 | 11.20 | 2543 | 11.77 |
| 5600 | 2440 | 2121 | 7.58 | 2176 | 8.09 | 2229 | 8.60 | 2281 | 9.12 | 2333 | 9.67 | 2382 | 10.22 | 2432 | 10.78 | 2480 | 11.36 | 2528 | 11.93 | 2576 | 12.53 |
| 6000 | 2614 | 2169 | 8.31 | 2222 | 8.82 | 2275 | 9.35 | 2326 | 9.89 | 2376 | 10.44 | 2425 | 11.00 | 2473 | 11.58 | 2520 | 12.15 | 2567 | 12.76 | | |
| 6400 | 2788 | 2222 | 9.11 | 2273 | 9.65 | 2324 | 10.19 | 2373 | 10.74 | 2422 | 11.30 | 2470 | 11.87 | 2516 | 12.45 | 2564 | 13.06 | | | | |
| 6800 | 2963 | 2279 | 9.98 | 2327 | 10.54 | 2375 | 11.10 | 2423 | 11.67 | 2471 | 12.25 | 2517 | 12.83 | 2563 | 13.43 | | | | | | |
| 7200 | 3137 | 2340 | 10.92 | 2385 | 11.50 | 2431 | 12.09 | 2477 | 12.69 | 2522 | 13.28 | 2567 | 13.88 | | | | | | | | |
| 7600 | 3311 | 2404 | 11.92 | 2448 | 12.53 | 2491 | 13.14 | 2534 | 13.76 | 2577 | 14.38 | | | | | | | | | | |
| 8000 | 3485 | 2472 | 13.00 | 2513 | 13.63 | 2554 | 14.27 | 2595 | 14.92 | | | | | | | | | | | | |
| 8500 | 3703 | 2560 | 14.46 | 2598 | 15.12 | | | | | | | | | | | | | | | | |

The BHP shown does not include belt drive losses.

The performance shown is for fan with outlet duct.

Wheel Diameter = 22.25 in.
Outlet Area = 2.85 sq. ft. inside
Maximum BHP = 1.48 x $(RPM/1000)^3$
Tip Speed, fpm = 5.83 x RPM

| | |
|---|---|
| Class I | RPM 1802 |
| Class II | RPM 2347 |

Size

# 2225 SISW

## Design 7620 Centrifugal BI Fans

| Volume | O.Vel | 1/4"SP | | 3/8"SP | | 1/2"SP | | 5/8"SP | | 3/4"SP | | 7/8"SP | | 1"SP | | 1-1/4"SP | | 1-1/2"SP | | 1-3/4"SP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CFM | FPM | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 1800 | 634 | 420 | 0.11 | 472 | 0.15 | 520 | 0.19 | 565 | 0.23 | 607 | 0.28 | 647 | 0.33 | | | | | | | | |
| 2000 | 704 | 445 | 0.13 | 492 | 0.17 | 537 | 0.21 | 580 | 0.26 | 621 | 0.31 | 659 | 0.36 | 696 | 0.41 | | | | | | |
| 2400 | 845 | 499 | 0.18 | 539 | 0.23 | 577 | 0.28 | 616 | 0.33 | 654 | 0.38 | 689 | 0.43 | 724 | 0.49 | 788 | 0.61 | 849 | 0.75 | | |
| 2600 | 915 | 528 | 0.21 | 564 | 0.26 | 601 | 0.32 | 636 | 0.37 | 672 | 0.42 | 706 | 0.48 | 740 | 0.54 | 802 | 0.66 | 861 | 0.80 | 918 | 0.94 |
| 2800 | 986 | 558 | 0.25 | 592 | 0.30 | 625 | 0.36 | 659 | 0.41 | 692 | 0.47 | 725 | 0.53 | 757 | 0.59 | 818 | 0.72 | 876 | 0.86 | 930 | 1.00 |
| 3000 | 1056 | 589 | 0.29 | 620 | 0.34 | 651 | 0.40 | 683 | 0.46 | 714 | 0.53 | 745 | 0.59 | 776 | 0.65 | 835 | 0.78 | 891 | 0.92 | 944 | 1.07 |
| 3200 | 1126 | 620 | 0.33 | 649 | 0.39 | 679 | 0.46 | 708 | 0.52 | 737 | 0.58 | 766 | 0.65 | 795 | 0.72 | 853 | 0.85 | 907 | 0.99 | 959 | 1.15 |
| 3400 | 1197 | 651 | 0.38 | 679 | 0.45 | 707 | 0.51 | 734 | 0.58 | 762 | 0.65 | 790 | 0.72 | 817 | 0.78 | 871 | 0.93 | 924 | 1.07 | 975 | 1.23 |
| 3600 | 1267 | 683 | 0.44 | 709 | 0.50 | 735 | 0.57 | 762 | 0.64 | 788 | 0.72 | 814 | 0.79 | 840 | 0.86 | 891 | 1.01 | 942 | 1.16 | 992 | 1.32 |
| 3800 | 1338 | 716 | 0.50 | 740 | 0.57 | 765 | 0.64 | 790 | 0.71 | 815 | 0.79 | 839 | 0.87 | 864 | 0.94 | 913 | 1.10 | 962 | 1.25 | 1010 | 1.42 |
| 4000 | 1408 | 749 | 0.57 | 772 | 0.64 | 795 | 0.71 | 819 | 0.79 | 842 | 0.87 | 866 | 0.95 | 889 | 1.03 | 936 | 1.19 | 982 | 1.35 | 1028 | 1.52 |
| 4200 | 1478 | 782 | 0.64 | 803 | 0.72 | 826 | 0.79 | 848 | 0.87 | 870 | 0.95 | 893 | 1.04 | 915 | 1.12 | 960 | 1.29 | 1004 | 1.46 | 1048 | 1.64 |
| 4600 | 1619 | 848 | 0.81 | 868 | 0.89 | 888 | 0.97 | 908 | 1.06 | 929 | 1.15 | 949 | 1.24 | 970 | 1.33 | 1011 | 1.51 | 1051 | 1.69 | 1092 | 1.88 |
| 4800 | 1690 | 882 | 0.91 | 901 | 0.99 | 920 | 1.08 | 939 | 1.16 | 959 | 1.25 | 978 | 1.35 | 998 | 1.44 | 1037 | 1.63 | 1076 | 1.82 | 1115 | 2.02 |
| 5000 | 1760 | 915 | 1.01 | 933 | 1.10 | 952 | 1.19 | 970 | 1.28 | 989 | 1.37 | 1008 | 1.46 | 1026 | 1.56 | 1064 | 1.76 | 1102 | 1.96 | 1139 | 2.16 |
| 5500 | 1936 | 1000 | 1.31 | 1016 | 1.40 | 1033 | 1.50 | 1049 | 1.59 | 1066 | 1.69 | 1083 | 1.80 | 1100 | 1.90 | 1134 | 2.11 | 1169 | 2.33 | 1203 | 2.55 |
| 6000 | 2112 | 1086 | 1.67 | 1100 | 1.77 | 1115 | 1.86 | 1130 | 1.97 | 1146 | 2.08 | 1161 | 2.18 | 1176 | 2.29 | 1208 | 2.52 | 1239 | 2.75 | 1270 | 2.99 |
| 6500 | 2288 | 1171 | 2.08 | 1185 | 2.19 | 1198 | 2.29 | 1212 | 2.41 | 1226 | 2.52 | 1240 | 2.63 | 1254 | 2.75 | 1283 | 2.99 | 1312 | 3.24 | 1341 | 3.49 |
| 7000 | 2464 | 1258 | 2.57 | 1270 | 2.68 | 1283 | 2.79 | 1295 | 2.91 | 1308 | 3.03 | 1321 | 3.15 | 1334 | 3.27 | 1360 | 3.53 | 1387 | 3.79 | 1414 | 4.05 |
| 7500 | 2640 | 1344 | 3.12 | 1356 | 3.24 | 1367 | 3.36 | 1379 | 3.48 | 1391 | 3.61 | 1403 | 3.74 | 1415 | 3.87 | 1439 | 4.13 | 1464 | 4.41 | 1489 | 4.69 |
| 8000 | 2816 | 1430 | 3.75 | 1441 | 3.88 | 1452 | 4.01 | 1463 | 4.14 | 1474 | 4.27 | 1485 | 4.40 | 1497 | 4.54 | 1519 | 4.82 | 1542 | 5.11 | 1565 | 5.40 |
| 8500 | 2992 | 1517 | 4.47 | 1528 | 4.60 | 1538 | 4.74 | 1548 | 4.87 | 1558 | 5.01 | 1569 | 5.15 | 1579 | 5.30 | 1600 | 5.59 | 1622 | 5.89 | 1643 | 6.19 |
| 9000 | 3168 | 1604 | 5.27 | 1614 | 5.41 | 1624 | 5.55 | 1633 | 5.70 | 1643 | 5.84 | 1653 | 5.99 | 1662 | 6.14 | 1682 | 6.45 | 1702 | 6.75 | 1722 | 7.08 |
| 9500 | 3344 | 1691 | 6.16 | 1700 | 6.31 | 1710 | 6.46 | 1719 | 6.61 | 1728 | 6.76 | 1737 | 6.92 | 1746 | 7.08 | 1765 | 7.39 | 1784 | 7.72 | 1803 | 8.05 |
| 10000 | 3520 | 1778 | 7.15 | 1787 | 7.31 | 1796 | 7.47 | 1805 | 7.63 | 1813 | 7.79 | 1822 | 7.95 | 1830 | 8.11 | 1848 | 8.44 | 1866 | 8.78 | 1884 | 9.12 |
| 10500 | 3696 | 1865 | 8.24 | 1874 | 8.41 | 1882 | 8.58 | 1891 | 8.75 | 1899 | 8.91 | 1907 | 9.08 | 1915 | 9.25 | 1932 | 9.59 | 1948 | 9.94 | 1965 | 10.30 |
| 11000 | 3872 | 1952 | 9.44 | 1960 | 9.62 | 1969 | 9.79 | 1977 | 9.97 | 1985 | 10.14 | 1992 | 10.32 | 2000 | 10.49 | 2016 | 10.85 | 2032 | 11.21 | 2048 | 11.58 |
| 12000 | 4224 | 2127 | 12.19 | 2134 | 12.38 | 2142 | 12.57 | 2149 | 12.76 | 2157 | 12.95 | 2164 | 13.14 | 2171 | 13.33 | 2185 | 13.71 | 2200 | 14.11 | 2214 | 14.50 |
| 13000 | 4576 | 2302 | 15.43 | 2309 | 15.63 | 2316 | 15.83 | 2322 | 16.04 | 2329 | 16.25 | 2336 | 16.46 | 2343 | 16.67 | | | | | | |

| Volume | O.Vel | 2"SP | | 2-1/4"SP | | 2-1/2"SP | | 3"SP | | 3-1/2"SP | | 4"SP | | 4-1/2"SP | | 5"SP | | 5-1/2"SP | | 6"SP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CFM | FPM | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 2800 | 986 | 982 | 1.16 | | | | | | | | | | | | | | | | | | |
| 3200 | 1126 | 1008 | 1.31 | 1056 | 1.47 | 1102 | 1.64 | | | | | | | | | | | | | | |
| 3400 | 1197 | 1023 | 1.39 | 1070 | 1.56 | 1114 | 1.74 | 1201 | 2.11 | | | | | | | | | | | | |
| 3600 | 1267 | 1039 | 1.48 | 1085 | 1.66 | 1129 | 1.84 | 1213 | 2.21 | 1292 | 2.61 | | | | | | | | | | |
| 3800 | 1338 | 1056 | 1.58 | 1101 | 1.76 | 1144 | 1.94 | 1226 | 2.32 | 1304 | 2.73 | 1379 | 3.16 | | | | | | | | |
| 4000 | 1408 | 1074 | 1.69 | 1117 | 1.87 | 1160 | 2.06 | 1240 | 2.44 | 1316 | 2.86 | 1390 | 3.29 | | | | | | | | |
| 4200 | 1478 | 1092 | 1.81 | 1135 | 1.99 | 1176 | 2.18 | 1255 | 2.57 | 1330 | 2.99 | 1402 | 3.43 | 1472 | 3.90 | | | | | | |
| 4500 | 1584 | 1122 | 2.00 | 1163 | 2.19 | 1203 | 2.39 | 1280 | 2.79 | 1353 | 3.21 | 1422 | 3.66 | 1489 | 4.13 | 1554 | 4.62 | 1618 | 5.13 | | |
| 4800 | 1690 | 1154 | 2.21 | 1192 | 2.41 | 1231 | 2.61 | 1305 | 3.03 | 1377 | 3.46 | 1445 | 3.92 | 1511 | 4.40 | 1573 | 4.89 | 1635 | 5.41 | 1695 | 5.94 |
| 5000 | 1760 | 1176 | 2.36 | 1214 | 2.57 | 1250 | 2.77 | 1323 | 3.20 | 1394 | 3.64 | 1461 | 4.10 | 1525 | 4.58 | 1587 | 5.08 | 1647 | 5.60 | 1706 | 6.14 |
| 5200 | 1830 | 1200 | 2.52 | 1236 | 2.73 | 1271 | 2.94 | 1342 | 3.38 | 1411 | 3.83 | 1477 | 4.29 | 1541 | 4.78 | 1602 | 5.29 | 1661 | 5.81 | 1719 | 6.36 |
| 5500 | 1936 | 1237 | 2.77 | 1271 | 2.99 | 1305 | 3.21 | 1372 | 3.67 | 1438 | 4.13 | 1503 | 4.61 | 1565 | 5.10 | 1625 | 5.62 | 1683 | 6.15 | 1739 | 6.70 |
| 6000 | 2112 | 1302 | 3.23 | 1333 | 3.46 | 1364 | 3.70 | 1426 | 4.19 | 1487 | 4.69 | 1549 | 5.19 | 1608 | 5.70 | 1666 | 6.23 | 1723 | 6.78 | 1777 | 7.34 |
| 6500 | 2288 | 1370 | 3.74 | 1399 | 4.00 | 1428 | 4.26 | 1485 | 4.78 | 1542 | 5.31 | 1598 | 5.84 | 1655 | 6.38 | 1711 | 6.93 | 1765 | 7.49 | 1818 | 8.07 |
| 7000 | 2464 | 1440 | 4.32 | 1467 | 4.60 | 1494 | 4.87 | 1548 | 5.43 | 1601 | 5.99 | 1654 | 6.55 | 1706 | 7.13 | 1759 | 7.71 | 1811 | 8.30 | 1862 | 8.89 |
| 7500 | 2640 | 1513 | 4.97 | 1538 | 5.26 | 1564 | 5.56 | 1613 | 6.15 | 1663 | 6.74 | 1713 | 7.34 | 1762 | 7.94 | 1811 | 8.55 | 1860 | 9.17 | 1909 | 9.79 |
| 8000 | 2816 | 1588 | 5.70 | 1612 | 6.00 | 1635 | 6.31 | 1682 | 6.93 | 1729 | 7.56 | 1775 | 8.20 | 1821 | 8.83 | 1868 | 9.48 | 1914 | 10.13 | 1959 | 10.78 |
| 8500 | 2992 | 1665 | 6.51 | 1687 | 6.82 | 1709 | 7.14 | 1752 | 7.80 | 1796 | 8.46 | 1840 | 9.13 | 1884 | 9.80 | 1928 | 10.48 | 1971 | 11.16 | 2015 | 11.85 |
| 9000 | 3168 | 1743 | 7.40 | 1763 | 7.73 | 1784 | 8.06 | 1825 | 8.75 | 1866 | 9.44 | 1908 | 10.15 | 1949 | 10.85 | 1990 | 11.57 | 2032 | 12.28 | 2073 | 13.01 |
| 9500 | 3344 | 1822 | 8.39 | 1841 | 8.73 | 1860 | 9.08 | 1899 | 9.79 | 1938 | 10.52 | 1978 | 11.25 | 2017 | 11.99 | 2056 | 12.74 | 2095 | 13.49 | 2134 | 14.25 |
| 10500 | 3696 | 1982 | 10.66 | 2000 | 11.03 | 2017 | 11.40 | 2052 | 12.17 | 2087 | 12.94 | 2122 | 13.73 | 2157 | 14.54 | 2193 | 15.37 | 2228 | 16.18 | 2263 | 17.00 |
| 11000 | 3872 | 2064 | 11.96 | 2080 | 12.34 | 2097 | 12.73 | 2129 | 13.51 | 2163 | 14.32 | 2196 | 15.14 | 2230 | 15.97 | 2263 | 16.81 | 2297 | 17.68 | 2330 | 18.53 |
| 11500 | 4048 | 2146 | 13.37 | 2161 | 13.76 | 2177 | 14.16 | 2208 | 14.97 | 2240 | 15.81 | 2272 | 16.65 | 2304 | 17.51 | 2336 | 18.39 | | | | |
| 12000 | 4224 | 2229 | 14.90 | 2243 | 15.31 | 2258 | 15.71 | 2288 | 16.56 | 2318 | 17.41 | | | | | | | | | | |

| Volume | O.Vel | 6-1/2"SP | | 7"SP | | 7-1/2"SP | | 8"SP | | 8-1/2"SP | | 9"SP | | 9-1/2"SP | | 10"SP | | 10-1/2"SP | | 11"SP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CFM | FPM | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 5500 | 1936 | 1795 | 7.28 | 1849 | 7.87 | 1901 | 8.46 | 1953 | 9.07 | | | | | | | | | | | | |
| 6000 | 2112 | 1830 | 7.93 | 1883 | 8.53 | 1933 | 9.14 | 1982 | 9.77 | 2032 | 10.41 | 2080 | 11.07 | 2127 | 11.74 | 2175 | 12.43 | | | | |
| 6500 | 2288 | 1870 | 8.66 | 1920 | 9.28 | 1970 | 9.91 | 2018 | 10.55 | 2064 | 11.20 | 2111 | 11.88 | 2156 | 12.56 | 2201 | 13.26 | 2246 | 13.97 | 2290 | 14.69 |
| 7000 | 2464 | 1912 | 9.50 | 1961 | 10.12 | 2009 | 10.76 | 2056 | 11.42 | 2102 | 12.09 | 2146 | 12.77 | 2191 | 13.48 | 2234 | 14.18 | 2277 | 14.91 | 2319 | 15.64 |
| 7500 | 2640 | 1957 | 10.43 | 2004 | 11.07 | 2052 | 11.73 | 2097 | 12.39 | 2141 | 13.07 | 2186 | 13.78 | 2228 | 14.48 | 2271 | 15.21 | 2312 | 15.94 | | |
| 8000 | 2816 | 2005 | 11.45 | 2051 | 12.11 | 2096 | 12.78 | 2140 | 13.47 | 2184 | 14.18 | 2226 | 14.87 | 2269 | 15.60 | 2310 | 16.34 | | | | |
| 8500 | 2992 | 2058 | 12.54 | 2100 | 13.24 | 2143 | 13.94 | 2186 | 14.66 | 2228 | 15.37 | 2270 | 16.09 | 2311 | 16.84 | | | | | | |
| 9000 | 3168 | 2113 | 13.72 | 2154 | 14.45 | 2195 | 15.19 | 2235 | 15.93 | 2275 | 16.67 | 2316 | 17.43 | | | | | | | | |
| 9500 | 3344 | 2172 | 15.00 | 2211 | 15.75 | 2250 | 16.53 | 2288 | 17.29 | 2326 | 18.07 | | | | | | | | | | |
| 10000 | 3520 | 2234 | 16.37 | 2271 | 17.15 | 2308 | 17.96 | 2344 | 18.75 | | | | | | | | | | | | |

The BHP shown does not include belt drive losses.

The performance shown is for fan with outlet duct.



NORTHERN BLOWER®

Wheel Diameter = 24.50 in.
Outlet Area = 3.45 sq. ft. inside
Maximum BHP = 2.24 x $(RPM/1000)^3$
Tip Speed, fpm = 6.41 x RPM

| | |
|---|---|
| Class I | RPM 1694 |
| Class II | RPM 2208 |
| Class III | RPM 2777 |

Size

# 2450 SISW

## Design 7620 Centrifugal BI Fans

| Volume | O.Vel | 1/4"SP | | 3/8"SP | | 1/2"SP | | 5/8"SP | | 3/4"SP | | 7/8"SP | | 1"SP | | 1-1/4"SP | | 1-1/2"SP | | 1-3/4"SP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CFM | FPM | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 2500 | 725 | 421 | 0.17 | 464 | 0.21 | 503 | 0.27 | 538 | 0.32 | 572 | 0.38 | 605 | 0.43 | 636 | 0.50 | | | | | | |
| 3000 | 870 | 478 | 0.24 | 509 | 0.29 | 545 | 0.35 | 579 | 0.41 | 611 | 0.47 | 640 | 0.54 | 669 | 0.61 | 723 | 0.75 | 776 | 0.89 | | |
| 3500 | 1015 | 538 | 0.33 | 565 | 0.39 | 592 | 0.46 | 621 | 0.53 | 653 | 0.59 | 681 | 0.67 | 708 | 0.74 | 758 | 0.89 | 806 | 1.05 | 852 | 1.22 |
| 4000 | 1160 | 600 | 0.45 | 624 | 0.52 | 648 | 0.59 | 671 | 0.67 | 696 | 0.74 | 723 | 0.82 | 750 | 0.90 | 798 | 1.06 | 843 | 1.24 | 887 | 1.42 |
| 4500 | 1305 | 663 | 0.59 | 685 | 0.67 | 706 | 0.75 | 727 | 0.84 | 748 | 0.92 | 769 | 1.01 | 792 | 1.10 | 841 | 1.27 | 885 | 1.45 | 925 | 1.64 |
| 5000 | 1450 | 728 | 0.77 | 747 | 0.86 | 767 | 0.95 | 786 | 1.04 | 805 | 1.13 | 823 | 1.23 | 842 | 1.32 | 883 | 1.51 | 927 | 1.71 | 967 | 1.91 |
| 5500 | 1595 | 793 | 0.99 | 811 | 1.08 | 828 | 1.18 | 846 | 1.28 | 863 | 1.38 | 881 | 1.48 | 898 | 1.58 | 932 | 1.79 | 969 | 2.00 | 1009 | 2.22 |
| 6000 | 1740 | 859 | 1.24 | 875 | 1.35 | 892 | 1.45 | 908 | 1.56 | 924 | 1.66 | 939 | 1.77 | 955 | 1.88 | 986 | 2.11 | 1018 | 2.34 | 1052 | 2.57 |
| 6500 | 1885 | 925 | 1.54 | 940 | 1.65 | 955 | 1.76 | 970 | 1.88 | 985 | 1.99 | 1000 | 2.11 | 1015 | 2.23 | 1044 | 2.47 | 1072 | 2.71 | 1101 | 2.96 |
| 7000 | 2030 | 992 | 1.88 | 1006 | 2.00 | 1020 | 2.13 | 1034 | 2.25 | 1048 | 2.37 | 1061 | 2.50 | 1075 | 2.62 | 1102 | 2.88 | 1129 | 3.13 | 1156 | 3.40 |
| 7500 | 2175 | 1059 | 2.28 | 1072 | 2.41 | 1085 | 2.54 | 1098 | 2.67 | 1111 | 2.80 | 1124 | 2.93 | 1137 | 3.06 | 1162 | 3.33 | 1187 | 3.61 | 1212 | 3.89 |
| 8000 | 2320 | 1126 | 2.73 | 1138 | 2.86 | 1151 | 3.00 | 1163 | 3.14 | 1175 | 3.28 | 1187 | 3.42 | 1199 | 3.56 | 1223 | 3.85 | 1247 | 4.14 | 1270 | 4.43 |
| 8500 | 2465 | 1193 | 3.24 | 1205 | 3.38 | 1217 | 3.53 | 1228 | 3.67 | 1240 | 3.82 | 1251 | 3.97 | 1262 | 4.12 | 1285 | 4.42 | 1307 | 4.72 | 1330 | 5.03 |
| 9000 | 2610 | 1260 | 3.81 | 1272 | 3.96 | 1283 | 4.11 | 1294 | 4.27 | 1305 | 4.42 | 1316 | 4.58 | 1326 | 4.73 | 1348 | 5.05 | 1369 | 5.37 | 1390 | 5.69 |
| 9500 | 2755 | 1328 | 4.44 | 1339 | 4.60 | 1349 | 4.76 | 1360 | 4.93 | 1370 | 5.09 | 1380 | 5.25 | 1391 | 5.42 | 1411 | 5.75 | 1431 | 6.08 | 1451 | 6.43 |
| 10000 | 2900 | 1396 | 5.14 | 1406 | 5.31 | 1416 | 5.48 | 1426 | 5.65 | 1436 | 5.82 | 1445 | 5.99 | 1455 | 6.17 | 1474 | 6.51 | 1494 | 6.87 | 1513 | 7.22 |
| 11000 | 3190 | 1531 | 6.76 | 1541 | 6.95 | 1550 | 7.14 | 1559 | 7.32 | 1568 | 7.51 | 1577 | 7.70 | 1586 | 7.88 | 1604 | 8.27 | 1621 | 8.65 | 1638 | 9.04 |
| 12000 | 3480 | 1667 | 8.70 | 1676 | 8.90 | 1684 | 9.11 | 1693 | 9.31 | 1701 | 9.51 | 1709 | 9.72 | 1718 | 9.93 | 1734 | 10.33 | 1750 | 10.75 | 1766 | 11.16 |
| 13000 | 3771 | 1803 | 10.98 | 1811 | 11.20 | 1819 | 11.43 | 1827 | 11.65 | 1835 | 11.87 | 1842 | 12.09 | 1850 | 12.31 | 1865 | 12.76 | 1880 | 13.19 | 1895 | 13.65 |
| 14000 | 4061 | 1939 | 13.64 | 1947 | 13.88 | 1954 | 14.12 | 1962 | 14.36 | 1969 | 14.60 | 1976 | 14.83 | 1983 | 15.07 | 1997 | 15.55 | 2011 | 16.02 | 2025 | 16.49 |
| 15000 | 4351 | 2076 | 16.71 | 2083 | 16.96 | 2090 | 17.21 | 2097 | 17.47 | 2104 | 17.74 | 2111 | 17.98 | 2117 | 18.23 | 2130 | 18.74 | 2143 | 19.26 | 2156 | 19.76 |
| 16000 | 4641 | 2212 | 20.20 | 2219 | 20.47 | 2225 | 20.74 | 2232 | 21.01 | 2239 | 21.29 | 2245 | 21.57 | 2251 | 21.83 | 2264 | 22.37 | 2276 | 22.91 | 2288 | 23.47 |
| 16500 | 4786 | 2281 | 22.12 | 2287 | 22.40 | 2293 | 22.68 | 2300 | 22.96 | 2306 | 23.24 | 2313 | 23.53 | 2319 | 23.81 | 2331 | 24.36 | 2343 | 24.91 | 2354 | 25.48 |
| 17000 | 4931 | 2349 | 24.16 | 2355 | 24.44 | 2361 | 24.73 | 2368 | 25.02 | 2374 | 25.31 | 2380 | 25.61 | 2386 | 25.90 | 2398 | 26.46 | 2409 | 27.03 | 2421 | 27.61 |
| 18000 | 5221 | 2486 | 28.61 | 2492 | 28.91 | 2497 | 29.21 | 2503 | 29.51 | 2509 | 29.82 | 2515 | 30.13 | 2521 | 30.44 | 2532 | 31.05 | 2543 | 31.65 | 2554 | 32.25 |
| 19000 | 5511 | 2623 | 33.58 | 2628 | 33.89 | 2634 | 34.21 | 2639 | 34.52 | 2645 | 34.85 | 2650 | 35.17 | 2656 | 35.50 | 2667 | 36.16 | 2677 | 36.79 | 2688 | 37.42 |
| 20000 | 5801 | 2760 | 39.09 | 2765 | 39.42 | 2770 | 39.75 | 2775 | 40.09 | | | | | | | | | | | | |

| Volume | O.Vel | 2"SP | | 2-1/2"SP | | 3"SP | | 3-1/2"SP | | 4"SP | | 4-1/2"SP | | 5"SP | | 5-1/2"SP | | 6"SP | | 6-1/2"SP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CFM | FPM | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 4000 | 1160 | 928 | 1.60 | 1008 | 1.98 | | | | | | | | | | | | | | | | |
| 4500 | 1305 | 965 | 1.84 | 1039 | 2.25 | 1110 | 2.67 | 1180 | 3.12 | | | | | | | | | | | | |
| 5000 | 1450 | 1005 | 2.12 | 1076 | 2.55 | 1143 | 3.01 | 1207 | 3.47 | 1271 | 3.95 | | | | | | | | | | |
| 5500 | 1595 | 1047 | 2.44 | 1115 | 2.89 | 1180 | 3.37 | 1241 | 3.87 | 1301 | 4.38 | 1358 | 4.89 | 1415 | 5.43 | | | | | | |
| 6000 | 1740 | 1088 | 2.80 | 1157 | 3.28 | 1219 | 3.78 | 1279 | 4.30 | 1335 | 4.84 | 1390 | 5.38 | 1443 | 5.94 | 1496 | 6.51 | 1548 | 7.10 | | |
| 6500 | 1885 | 1133 | 3.21 | 1199 | 3.71 | 1261 | 4.24 | 1318 | 4.78 | 1373 | 5.34 | 1426 | 5.92 | 1477 | 6.51 | 1527 | 7.11 | 1576 | 7.71 | 1624 | 8.33 |
| 7000 | 2030 | 1183 | 3.66 | 1242 | 4.20 | 1303 | 4.75 | 1360 | 5.31 | 1413 | 5.90 | 1464 | 6.50 | 1513 | 7.11 | 1562 | 7.74 | 1609 | 8.38 | 1655 | 9.03 |
| 7500 | 2175 | 1237 | 4.17 | 1288 | 4.74 | 1345 | 5.31 | 1402 | 5.90 | 1455 | 6.51 | 1505 | 7.13 | 1553 | 7.77 | 1599 | 8.43 | 1645 | 9.09 | 1689 | 9.76 |
| 8000 | 2320 | 1294 | 4.72 | 1340 | 5.33 | 1390 | 5.94 | 1444 | 6.56 | 1497 | 7.18 | 1546 | 7.82 | 1593 | 8.49 | 1639 | 9.16 | 1683 | 9.85 | 1726 | 10.56 |
| 8500 | 2465 | 1352 | 5.34 | 1396 | 5.97 | 1440 | 6.62 | 1488 | 7.27 | 1539 | 7.92 | 1588 | 8.58 | 1635 | 9.27 | 1680 | 9.97 | 1723 | 10.68 | 1765 | 11.41 |
| 9000 | 2610 | 1411 | 6.02 | 1452 | 6.68 | 1494 | 7.35 | 1536 | 8.04 | 1582 | 8.73 | 1630 | 9.42 | 1677 | 10.12 | 1722 | 10.84 | 1764 | 11.58 | 1805 | 12.33 |
| 9500 | 2755 | 1471 | 6.76 | 1510 | 7.46 | 1550 | 8.16 | 1589 | 8.88 | 1629 | 9.60 | 1673 | 10.32 | 1719 | 11.05 | 1764 | 11.79 | 1807 | 12.55 | 1847 | 13.32 |
| 10000 | 2900 | 1532 | 7.58 | 1569 | 8.30 | 1607 | 9.03 | 1644 | 9.77 | 1681 | 10.53 | 1720 | 11.29 | 1762 | 12.05 | 1805 | 12.82 | 1849 | 13.60 | 1889 | 14.39 |
| 11000 | 3190 | 1655 | 9.42 | 1690 | 10.20 | 1724 | 11.00 | 1758 | 11.81 | 1792 | 12.62 | 1825 | 13.44 | 1859 | 14.26 | 1895 | 15.10 | 1933 | 15.94 | 1972 | 16.78 |
| 12000 | 3480 | 1782 | 11.58 | 1813 | 12.43 | 1844 | 13.28 | 1876 | 14.15 | 1907 | 15.02 | 1937 | 15.90 | 1968 | 16.79 | 1999 | 17.69 | 2030 | 18.59 | 2063 | 19.50 |
| 13000 | 3771 | 1909 | 14.09 | 1939 | 15.01 | 1967 | 15.91 | 1996 | 16.84 | 2025 | 17.78 | 2053 | 18.71 | 2082 | 19.66 | 2110 | 20.62 | 2138 | 21.58 | 2167 | 22.56 |
| 14000 | 4061 | 2039 | 16.98 | 2066 | 17.94 | 2093 | 18.93 | 2119 | 19.91 | 2146 | 20.90 | 2172 | 21.90 | 2199 | 22.90 | 2225 | 23.93 | 2251 | 24.94 | 2278 | 25.99 |
| 15000 | 4351 | 2169 | 20.26 | 2194 | 21.31 | 2219 | 22.33 | 2244 | 23.38 | 2269 | 24.43 | 2294 | 25.50 | 2318 | 26.56 | 2343 | 27.64 | 2367 | 28.71 | 2392 | 29.81 |
| 16000 | 4641 | 2300 | 24.00 | 2324 | 25.08 | 2347 | 26.18 | 2371 | 27.28 | 2394 | 28.40 | 2417 | 29.51 | 2440 | 30.66 | 2463 | 31.77 | 2486 | 32.93 | 2509 | 34.05 |
| 17000 | 4931 | 2432 | 28.20 | 2454 | 29.33 | 2477 | 30.50 | 2498 | 31.65 | 2520 | 32.83 | 2542 | 34.01 | 2564 | 35.18 | 2586 | 36.40 | 2607 | 37.57 | 2628 | 38.78 |
| 18000 | 5221 | 2565 | 32.86 | 2586 | 34.08 | 2607 | 35.29 | 2628 | 36.54 | 2648 | 37.74 | 2669 | 38.99 | 2689 | 40.24 | 2709 | 41.47 | 2730 | 42.75 | 2750 | 44.00 |
| 19000 | 5511 | 2698 | 38.06 | 2718 | 39.36 | 2738 | 40.61 | 2757 | 41.90 | 2777 | 43.21 | | | | | | | | | | |

| Volume | O.Vel | 7"SP | | 8"SP | | 9"SP | | 10"SP | | 11"SP | | 12"SP | | 14"SP | | 16"SP | | 18"SP | | 19"SP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CFM | FPM | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 6500 | 1885 | 1672 | 8.97 | | | | | | | | | | | | | | | | | | |
| 7000 | 2030 | 1700 | 9.68 | 1789 | 11.03 | | | | | | | | | | | | | | | | |
| 7500 | 2175 | 1732 | 10.45 | 1818 | 11.85 | 1901 | 13.29 | | | | | | | | | | | | | | |
| 8000 | 2320 | 1768 | 11.28 | 1850 | 12.72 | 1929 | 14.20 | 2008 | 15.73 | 2085 | 17.31 | | | | | | | | | | |
| 8500 | 2465 | 1806 | 12.15 | 1885 | 13.66 | 1962 | 15.19 | 2037 | 16.76 | 2111 | 18.37 | 2184 | 20.02 | | | | | | | | |
| 9000 | 2610 | 1845 | 13.09 | 1923 | 14.66 | 1997 | 16.25 | 2069 | 17.87 | 2140 | 19.52 | 2210 | 21.22 | 2348 | 24.74 | | | | | | |
| 9500 | 2755 | 1886 | 14.10 | 1962 | 15.72 | 2034 | 17.36 | 2105 | 19.04 | 2174 | 20.75 | 2241 | 22.50 | 2373 | 26.07 | | | | | | |
| 10000 | 2900 | 1927 | 15.19 | 2002 | 16.85 | 2073 | 18.54 | 2142 | 20.28 | 2209 | 22.05 | 2275 | 23.85 | 2402 | 27.50 | 2526 | 31.31 | | | | |
| 11000 | 3190 | 2011 | 17.62 | 2086 | 19.37 | 2155 | 21.14 | 2221 | 22.97 | 2285 | 24.84 | 2348 | 26.75 | 2468 | 30.63 | 2584 | 34.63 | 2698 | 38.69 | 2755 | 40.82 |
| 12000 | 3480 | 2097 | 20.41 | 2169 | 22.24 | 2238 | 24.10 | 2304 | 26.01 | 2366 | 27.96 | 2426 | 29.96 | 2542 | 34.07 | 2652 | 38.26 | 2760 | 42.54 | | |
| 13000 | 3771 | 2195 | 23.52 | 2257 | 25.48 | 2322 | 27.46 | 2388 | 29.46 | 2450 | 31.49 | 2508 | 33.56 | 2620 | 37.83 | 2727 | 42.23 | | | | |
| 14000 | 4061 | 2303 | 27.00 | 2356 | 29.09 | 2412 | 31.20 | 2471 | 33.31 | 2533 | 35.43 | 2592 | 37.59 | 2703 | 42.03 | | | | | | |
| 15000 | 4351 | 2416 | 30.89 | 2464 | 33.09 | 2513 | 35.33 | 2564 | 37.58 | 2619 | 39.84 | 2675 | 42.08 | | | | | | | | |
| 16000 | 4641 | 2532 | 35.21 | 2577 | 37.52 | 2622 | 39.87 | 2668 | 42.26 | 2714 | 44.63 | 2764 | 47.00 | | | | | | | | |
| 17000 | 4931 | 2650 | 40.00 | 2693 | 42.44 | 2735 | 44.88 | | | | | | | | | | | | | | |
| 18000 | 5221 | 2770 | 45.26 | | | | | | | | | | | | | | | | | | |

The BHP shown does not include belt drive losses.

The performance shown is for fan with outlet duct.

Wheel Diameter = 27.00 in.
Outlet Area = 4.19 sq. ft. inside
Maximum BHP = 3.64 x $(RPM/1000)^3$
Tip Speed, fpm = 7.07 x RPM

| | |
|---|---|
| Class I | RPM 1538 |
| Class II | RPM 2003 |
| Class III | RPM 2520 |

Size

# 2700 SISW

## Design 7620 Centrifugal BI Fans

| Volume | O.Vel | 1/4"SP | | 3/8"SP | | 1/2"SP | | 5/8"SP | | 3/4"SP | | 7/8"SP | | 1"SP | | 1-1/4"SP | | 1-1/2"SP | | 1-3/4"SP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CFM | FPM | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 3000 | 716 | 379 | 0.20 | 418 | 0.25 | 454 | 0.32 | 486 | 0.38 | 517 | 0.45 | 547 | 0.52 | 576 | 0.59 | | | | | | |
| 3500 | 836 | 421 | 0.26 | 451 | 0.33 | 485 | 0.40 | 517 | 0.47 | 545 | 0.55 | 573 | 0.62 | 599 | 0.70 | 650 | 0.87 | | | | |
| 4000 | 955 | 465 | 0.35 | 491 | 0.42 | 518 | 0.50 | 548 | 0.58 | 576 | 0.66 | 602 | 0.74 | 627 | 0.83 | 674 | 1.01 | 719 | 1.19 | 763 | 1.39 |
| 4500 | 1075 | 511 | 0.45 | 534 | 0.54 | 557 | 0.62 | 581 | 0.71 | 608 | 0.79 | 634 | 0.88 | 658 | 0.97 | 703 | 1.17 | 745 | 1.37 | 785 | 1.57 |
| 5000 | 1194 | 558 | 0.58 | 579 | 0.67 | 600 | 0.76 | 621 | 0.86 | 642 | 0.95 | 665 | 1.05 | 689 | 1.15 | 734 | 1.35 | 774 | 1.56 | 812 | 1.78 |
| 5500 | 1313 | 605 | 0.73 | 625 | 0.83 | 644 | 0.93 | 663 | 1.03 | 682 | 1.13 | 701 | 1.24 | 721 | 1.34 | 765 | 1.56 | 805 | 1.78 | 842 | 2.01 |
| 6000 | 1433 | 653 | 0.91 | 671 | 1.01 | 689 | 1.12 | 706 | 1.23 | 724 | 1.34 | 741 | 1.45 | 758 | 1.57 | 796 | 1.80 | 836 | 2.03 | 873 | 2.28 |
| 6500 | 1552 | 702 | 1.12 | 719 | 1.23 | 735 | 1.34 | 751 | 1.46 | 767 | 1.58 | 783 | 1.70 | 799 | 1.82 | 832 | 2.07 | 868 | 2.32 | 904 | 2.58 |
| 7000 | 1672 | 751 | 1.36 | 767 | 1.48 | 782 | 1.60 | 797 | 1.73 | 812 | 1.85 | 827 | 1.98 | 842 | 2.11 | 871 | 2.37 | 902 | 2.64 | 936 | 2.91 |
| 7500 | 1791 | 801 | 1.63 | 815 | 1.76 | 829 | 1.89 | 843 | 2.02 | 858 | 2.16 | 872 | 2.29 | 885 | 2.43 | 913 | 2.71 | 941 | 2.99 | 970 | 3.28 |
| 8000 | 1911 | 850 | 1.94 | 864 | 2.08 | 877 | 2.22 | 891 | 2.36 | 904 | 2.50 | 917 | 2.64 | 930 | 2.79 | 956 | 3.08 | 982 | 3.38 | 1008 | 3.68 |
| 8500 | 2030 | 900 | 2.29 | 913 | 2.43 | 925 | 2.58 | 938 | 2.73 | 951 | 2.88 | 963 | 3.03 | 975 | 3.18 | 1000 | 3.49 | 1024 | 3.81 | 1049 | 4.12 |
| 9000 | 2149 | 950 | 2.68 | 962 | 2.83 | 974 | 2.99 | 986 | 3.14 | 998 | 3.30 | 1010 | 3.46 | 1021 | 3.62 | 1045 | 3.95 | 1068 | 4.28 | 1091 | 4.61 |
| 9500 | 2269 | 1000 | 3.11 | 1011 | 3.27 | 1023 | 3.44 | 1034 | 3.60 | 1046 | 3.77 | 1057 | 3.94 | 1068 | 4.10 | 1090 | 4.44 | 1112 | 4.79 | 1134 | 5.14 |
| 10000 | 2388 | 1050 | 3.59 | 1061 | 3.76 | 1072 | 3.94 | 1083 | 4.11 | 1094 | 4.28 | 1104 | 4.46 | 1115 | 4.64 | 1136 | 4.99 | 1157 | 5.35 | 1178 | 5.71 |
| 11000 | 2627 | 1151 | 4.71 | 1161 | 4.89 | 1171 | 5.08 | 1181 | 5.27 | 1191 | 5.46 | 1200 | 5.65 | 1210 | 5.84 | 1229 | 6.23 | 1248 | 6.62 | 1267 | 7.01 |
| 12000 | 2866 | 1252 | 6.03 | 1261 | 6.23 | 1270 | 6.44 | 1280 | 6.64 | 1289 | 6.85 | 1297 | 7.05 | 1307 | 7.26 | 1324 | 7.68 | 1342 | 8.10 | 1359 | 8.53 |
| 13000 | 3105 | 1353 | 7.59 | 1362 | 7.81 | 1370 | 8.03 | 1379 | 8.25 | 1387 | 8.48 | 1396 | 8.70 | 1404 | 8.92 | 1420 | 9.37 | 1436 | 9.82 | 1453 | 10.28 |
| 14000 | 3343 | 1454 | 9.40 | 1463 | 9.64 | 1471 | 9.88 | 1479 | 10.12 | 1486 | 10.35 | 1494 | 10.60 | 1502 | 10.83 | 1517 | 11.31 | 1532 | 11.80 | 1547 | 12.28 |
| 15000 | 3582 | 1556 | 11.49 | 1564 | 11.74 | 1571 | 12.01 | 1579 | 12.26 | 1586 | 12.51 | 1593 | 12.76 | 1601 | 13.02 | 1615 | 13.53 | 1629 | 14.05 | 1643 | 14.57 |
| 16000 | 3821 | 1658 | 13.87 | 1665 | 14.14 | 1672 | 14.42 | 1679 | 14.69 | 1686 | 14.96 | 1693 | 15.23 | 1700 | 15.50 | 1713 | 16.05 | 1727 | 16.59 | 1740 | 17.14 |
| 17000 | 4060 | 1759 | 16.56 | 1766 | 16.85 | 1773 | 17.14 | 1780 | 17.44 | 1787 | 17.72 | 1793 | 18.00 | 1799 | 18.29 | 1812 | 18.87 | 1825 | 19.45 | 1837 | 20.02 |
| 18000 | 4299 | 1861 | 19.59 | 1868 | 19.89 | 1874 | 20.20 | 1881 | 20.51 | 1887 | 20.82 | 1893 | 21.12 | 1899 | 21.42 | 1911 | 22.03 | 1924 | 22.65 | 1935 | 23.25 |
| 19000 | 4537 | 1963 | 22.96 | 1970 | 23.28 | 1976 | 23.60 | 1982 | 23.93 | 1988 | 24.26 | 1994 | 24.59 | 2000 | 24.90 | 2011 | 25.54 | 2022 | 26.18 | 2034 | 26.84 |
| 20000 | 4776 | 2066 | 26.71 | 2071 | 27.05 | 2077 | 27.38 | 2083 | 27.72 | 2089 | 28.07 | 2095 | 28.42 | 2100 | 28.76 | 2111 | 29.42 | 2122 | 30.09 | 2133 | 30.78 |

| Volume | O.Vel | 2"SP | | 2-1/2"SP | | 3"SP | | 3-1/2"SP | | 4"SP | | 4-1/2"SP | | 5"SP | | 5-1/2"SP | | 6"SP | | 6-1/2"SP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CFM | FPM | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 4500 | 1075 | 825 | 1.79 | | | | | | | | | | | | | | | | | | |
| 5000 | 1194 | 849 | 2.01 | 921 | 2.48 | 990 | 2.97 | | | | | | | | | | | | | | |
| 5500 | 1313 | 877 | 2.26 | 945 | 2.75 | 1009 | 3.27 | 1072 | 3.81 | | | | | | | | | | | | |
| 6000 | 1433 | 907 | 2.53 | 972 | 3.05 | 1033 | 3.60 | 1092 | 4.16 | 1150 | 4.74 | | | | | | | | | | |
| 6500 | 1552 | 938 | 2.84 | 1001 | 3.39 | 1060 | 3.96 | 1117 | 4.55 | 1171 | 5.15 | 1225 | 5.78 | 1278 | 6.43 | | | | | | |
| 7000 | 1672 | 970 | 3.18 | 1032 | 3.75 | 1089 | 4.35 | 1144 | 4.97 | 1196 | 5.61 | 1247 | 6.25 | 1297 | 6.91 | 1346 | 7.60 | | | | |
| 7500 | 1791 | 1001 | 3.57 | 1064 | 4.16 | 1120 | 4.78 | 1173 | 5.42 | 1223 | 6.08 | 1272 | 6.76 | 1320 | 7.46 | 1367 | 8.16 | 1413 | 8.88 | 1459 | 9.62 |
| 8000 | 1911 | 1035 | 3.99 | 1095 | 4.61 | 1151 | 5.25 | 1203 | 5.92 | 1252 | 6.60 | 1300 | 7.30 | 1346 | 8.02 | 1391 | 8.76 | 1435 | 9.50 | 1478 | 10.26 |
| 8500 | 2030 | 1073 | 4.45 | 1126 | 5.10 | 1183 | 5.76 | 1234 | 6.45 | 1282 | 7.16 | 1329 | 7.89 | 1373 | 8.63 | 1417 | 9.40 | 1460 | 10.17 | 1502 | 10.96 |
| 9000 | 2149 | 1114 | 4.95 | 1161 | 5.63 | 1214 | 6.33 | 1265 | 7.03 | 1313 | 7.77 | 1359 | 8.52 | 1402 | 9.29 | 1445 | 10.08 | 1486 | 10.89 | 1527 | 11.70 |
| 9500 | 2269 | 1156 | 5.49 | 1199 | 6.21 | 1246 | 6.94 | 1297 | 7.67 | 1345 | 8.42 | 1390 | 9.20 | 1433 | 9.99 | 1474 | 10.81 | 1515 | 11.64 | 1554 | 12.47 |
| 10000 | 2388 | 1198 | 6.08 | 1239 | 6.83 | 1282 | 7.59 | 1328 | 8.35 | 1376 | 9.13 | 1421 | 9.93 | 1464 | 10.75 | 1505 | 11.58 | 1544 | 12.43 | 1582 | 13.30 |
| 11000 | 2627 | 1286 | 7.41 | 1324 | 8.22 | 1361 | 9.04 | 1399 | 9.87 | 1440 | 10.72 | 1484 | 11.56 | 1526 | 12.42 | 1567 | 13.30 | 1605 | 14.20 | 1642 | 15.11 |
| 12000 | 2866 | 1377 | 8.96 | 1411 | 9.82 | 1445 | 10.71 | 1479 | 11.60 | 1514 | 12.51 | 1550 | 13.42 | 1589 | 14.34 | 1629 | 15.26 | 1668 | 16.20 | 1705 | 17.16 |
| 13000 | 3105 | 1469 | 10.74 | 1501 | 11.67 | 1532 | 12.61 | 1564 | 13.56 | 1595 | 14.53 | 1627 | 15.51 | 1659 | 16.50 | 1694 | 17.48 | 1730 | 18.47 | 1767 | 19.47 |
| 14000 | 3343 | 1562 | 12.78 | 1592 | 13.77 | 1622 | 14.77 | 1651 | 15.78 | 1680 | 16.81 | 1709 | 17.85 | 1738 | 18.89 | 1768 | 19.94 | 1799 | 21.01 | 1832 | 22.08 |
| 15000 | 3582 | 1657 | 15.08 | 1685 | 16.14 | 1713 | 17.21 | 1740 | 18.28 | 1767 | 19.36 | 1795 | 20.46 | 1822 | 21.57 | 1849 | 22.67 | 1876 | 23.81 | 1904 | 24.93 |
| 16000 | 3821 | 1753 | 17.70 | 1779 | 18.81 | 1805 | 19.93 | 1831 | 21.07 | 1856 | 22.22 | 1882 | 23.36 | 1907 | 24.54 | 1933 | 25.70 | 1958 | 26.89 | 1983 | 28.08 |
| 17000 | 4060 | 1850 | 20.62 | 1874 | 21.78 | 1899 | 22.98 | 1923 | 24.17 | 1947 | 25.37 | 1971 | 26.59 | 1995 | 27.81 | 2019 | 29.06 | 2042 | 30.28 | 2066 | 31.55 |
| 18000 | 4299 | 1947 | 23.86 | 1970 | 25.11 | 1993 | 26.34 | 2016 | 27.60 | 2039 | 28.87 | 2061 | 30.14 | 2084 | 31.43 | 2107 | 32.71 | 2129 | 34.02 | 2152 | 35.32 |
| 19000 | 4537 | 2045 | 27.47 | 2067 | 28.77 | 2088 | 30.07 | 2110 | 31.40 | 2132 | 32.71 | 2153 | 34.05 | 2175 | 35.39 | 2196 | 36.74 | 2217 | 38.10 | 2238 | 39.46 |
| 20000 | 4776 | 2143 | 31.46 | 2164 | 32.80 | 2185 | 34.19 | 2205 | 35.54 | 2226 | 36.96 | 2246 | 38.32 | 2267 | 39.74 | 2287 | 41.14 | 2307 | 42.55 | 2327 | 44.00 |
| 21000 | 5015 | 2242 | 35.83 | 2262 | 37.23 | 2282 | 38.67 | 2301 | 40.10 | 2321 | 41.54 | 2340 | 43.02 | 2359 | 44.45 | 2379 | 45.93 | 2398 | 47.40 | 2417 | 48.87 |

| Volume | O.Vel | 7"SP | | 8"SP | | 9"SP | | 10"SP | | 11"SP | | 12"SP | | 14"SP | | 16"SP | | 18"SP | | 19"SP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CFM | FPM | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 8000 | 1911 | 1522 | 11.04 | | | | | | | | | | | | | | | | | | |
| 8500 | 2030 | 1543 | 11.76 | 1624 | 13.39 | | | | | | | | | | | | | | | | |
| 9000 | 2149 | 1566 | 12.52 | 1645 | 14.21 | 1721 | 15.94 | | | | | | | | | | | | | | |
| 9500 | 2269 | 1592 | 13.32 | 1668 | 15.07 | 1741 | 16.85 | 1813 | 18.68 | | | | | | | | | | | | |
| 10000 | 2388 | 1620 | 14.17 | 1693 | 15.98 | 1764 | 17.81 | 1834 | 19.68 | 1902 | 21.61 | 1971 | 23.61 | | | | | | | | |
| 11000 | 2627 | 1678 | 16.03 | 1749 | 17.94 | 1816 | 19.89 | 1882 | 21.87 | 1946 | 23.88 | 2009 | 25.95 | 2133 | 30.21 | | | | | | |
| 12000 | 2866 | 1740 | 18.13 | 1808 | 20.12 | 1873 | 22.16 | 1935 | 24.25 | 1996 | 26.38 | 2056 | 28.55 | 2173 | 33.00 | 2286 | 37.56 | | | | |
| 13000 | 3105 | 1803 | 20.49 | 1870 | 22.56 | 1933 | 24.70 | 1994 | 26.89 | 2052 | 29.12 | 2110 | 31.39 | 2221 | 36.04 | 2328 | 40.80 | 2434 | 45.74 | 2485 | 48.21 |
| 14000 | 3343 | 1865 | 23.13 | 1933 | 25.30 | 1995 | 27.51 | 2055 | 29.79 | 2112 | 32.11 | 2167 | 34.49 | 2274 | 39.34 | 2377 | 44.34 | 2476 | 49.40 | | |
| 15000 | 3582 | 1933 | 26.06 | 1995 | 28.34 | 2058 | 30.65 | 2118 | 33.01 | 2174 | 35.42 | 2227 | 37.87 | 2331 | 42.91 | 2430 | 48.11 | | | | |
| 16000 | 3821 | 2009 | 29.27 | 2063 | 31.68 | 2120 | 34.10 | 2179 | 36.54 | 2236 | 39.03 | 2289 | 41.57 | 2391 | 46.82 | 2487 | 52.17 | | | | |
| 17000 | 4060 | 2090 | 32.78 | 2138 | 35.32 | 2188 | 37.88 | 2242 | 40.44 | 2298 | 43.02 | 2352 | 45.64 | 2452 | 51.03 | | | | | | |
| 18000 | 4299 | 2174 | 36.63 | 2218 | 39.28 | 2263 | 41.96 | 2311 | 44.66 | 2362 | 47.38 | 2414 | 50.10 | 2515 | 55.62 | | | | | | |
| 19000 | 4537 | 2260 | 40.86 | 2302 | 43.62 | 2344 | 46.40 | 2386 | 49.21 | 2431 | 52.07 | 2478 | 54.94 | | | | | | | | |
| 20000 | 4776 | 2347 | 45.40 | 2387 | 48.29 | 2427 | 51.23 | 2467 | 54.14 | 2507 | 57.09 | | | | | | | | | | |
| 21000 | 5015 | 2436 | 50.40 | 2474 | 53.36 | 2512 | 56.39 | | | | | | | | | | | | | | |

The BHP shown does not include belt drive losses.

The performance shown is for fan with outlet duct.



NORTHERN BLOWER®

Wheel Diameter = 30.00 in.
Outlet Area = 5.17 sq. ft. inside
Maximum BHP = 6.16 x $(RPM/1000)^3$
Tip Speed, fpm = 7.85 x RPM

| | |
|---|---|
| Class I | RPM 1383 |
| Class II | RPM 1802 |
| Class III | RPM 2267 |

Size

# 3000 SISW

## Design 7620 Centrifugal BI Fans

| Volume | O.Vel | 1/4"SP | | 3/8"SP | | 1/2"SP | | 5/8"SP | | 3/4"SP | | 7/8"SP | | 1"SP | | 1-1/4"SP | | 1-1/2"SP | | 1-3/4"SP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CFM | FPM | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 3500 | 677 | 330 | 0.22 | 367 | 0.29 | 400 | 0.36 | 430 | 0.44 | 458 | 0.52 | 486 | 0.61 | | | | | | | | |
| 4000 | 774 | 359 | 0.28 | 390 | 0.36 | 422 | 0.44 | 451 | 0.52 | 477 | 0.61 | 503 | 0.70 | 527 | 0.79 | 576 | 0.99 | | | | |
| 4500 | 870 | 390 | 0.35 | 416 | 0.44 | 445 | 0.53 | 473 | 0.62 | 499 | 0.71 | 523 | 0.81 | 546 | 0.91 | 591 | 1.12 | 634 | 1.34 | | |
| 5000 | 967 | 423 | 0.44 | 446 | 0.54 | 470 | 0.63 | 496 | 0.73 | 522 | 0.83 | 545 | 0.93 | 567 | 1.04 | 609 | 1.26 | 649 | 1.49 | 688 | 1.73 |
| 5500 | 1064 | 456 | 0.55 | 477 | 0.65 | 498 | 0.75 | 520 | 0.86 | 544 | 0.96 | 568 | 1.07 | 590 | 1.18 | 630 | 1.42 | 668 | 1.67 | 705 | 1.92 |
| 6000 | 1161 | 490 | 0.67 | 510 | 0.78 | 529 | 0.89 | 548 | 1.00 | 569 | 1.12 | 591 | 1.23 | 612 | 1.35 | 652 | 1.60 | 689 | 1.86 | 724 | 2.13 |
| 6500 | 1257 | 525 | 0.81 | 543 | 0.93 | 561 | 1.04 | 578 | 1.17 | 596 | 1.29 | 615 | 1.41 | 635 | 1.54 | 675 | 1.80 | 711 | 2.07 | 745 | 2.35 |
| 7000 | 1354 | 559 | 0.97 | 576 | 1.10 | 593 | 1.22 | 610 | 1.35 | 626 | 1.48 | 643 | 1.62 | 660 | 1.75 | 698 | 2.02 | 734 | 2.30 | 767 | 2.59 |
| 7500 | 1451 | 595 | 1.16 | 611 | 1.29 | 626 | 1.42 | 642 | 1.56 | 657 | 1.70 | 673 | 1.84 | 688 | 1.98 | 721 | 2.27 | 757 | 2.56 | 790 | 2.86 |
| 8000 | 1548 | 630 | 1.37 | 645 | 1.51 | 660 | 1.65 | 674 | 1.79 | 689 | 1.94 | 703 | 2.09 | 718 | 2.24 | 747 | 2.54 | 780 | 2.85 | 813 | 3.16 |
| 8500 | 1644 | 666 | 1.60 | 680 | 1.75 | 694 | 1.90 | 708 | 2.05 | 722 | 2.21 | 735 | 2.36 | 749 | 2.52 | 776 | 2.84 | 804 | 3.16 | 836 | 3.49 |
| 9000 | 1741 | 702 | 1.86 | 715 | 2.02 | 728 | 2.18 | 741 | 2.34 | 754 | 2.50 | 767 | 2.66 | 780 | 2.83 | 806 | 3.16 | 832 | 3.50 | 859 | 3.85 |
| 9500 | 1838 | 738 | 2.15 | 751 | 2.32 | 763 | 2.48 | 776 | 2.65 | 788 | 2.82 | 800 | 2.99 | 812 | 3.17 | 837 | 3.52 | 861 | 3.87 | 886 | 4.24 |
| 10000 | 1934 | 774 | 2.47 | 786 | 2.65 | 798 | 2.82 | 810 | 3.00 | 822 | 3.17 | 833 | 3.35 | 845 | 3.53 | 868 | 3.90 | 891 | 4.28 | 914 | 4.65 |
| 11000 | 2128 | 847 | 3.21 | 858 | 3.41 | 869 | 3.59 | 880 | 3.79 | 890 | 3.98 | 901 | 4.17 | 912 | 4.37 | 933 | 4.77 | 954 | 5.17 | 975 | 5.58 |
| 12000 | 2321 | 920 | 4.10 | 930 | 4.30 | 940 | 4.51 | 950 | 4.71 | 960 | 4.92 | 970 | 5.13 | 980 | 5.35 | 999 | 5.78 | 1019 | 6.21 | 1038 | 6.65 |
| 13000 | 2515 | 993 | 5.13 | 1003 | 5.35 | 1012 | 5.58 | 1021 | 5.80 | 1030 | 6.02 | 1040 | 6.25 | 1049 | 6.48 | 1067 | 6.94 | 1085 | 7.40 | 1102 | 7.87 |
| 14000 | 2708 | 1066 | 6.33 | 1075 | 6.57 | 1084 | 6.81 | 1093 | 7.05 | 1101 | 7.29 | 1110 | 7.53 | 1118 | 7.78 | 1135 | 8.27 | 1152 | 8.76 | 1169 | 9.26 |
| 15000 | 2902 | 1140 | 7.71 | 1149 | 7.97 | 1157 | 8.22 | 1165 | 8.48 | 1173 | 8.74 | 1181 | 8.99 | 1189 | 9.25 | 1205 | 9.77 | 1220 | 10.31 | 1236 | 10.83 |
| 16000 | 3095 | 1214 | 9.29 | 1222 | 9.56 | 1230 | 9.83 | 1237 | 10.10 | 1245 | 10.38 | 1252 | 10.65 | 1260 | 10.92 | 1275 | 11.48 | 1289 | 12.03 | 1304 | 12.60 |
| 17000 | 3288 | 1288 | 11.06 | 1295 | 11.36 | 1303 | 11.64 | 1310 | 11.93 | 1317 | 12.22 | 1324 | 12.52 | 1331 | 12.80 | 1345 | 13.39 | 1359 | 13.98 | 1373 | 14.57 |
| 18000 | 3482 | 1362 | 13.06 | 1369 | 13.37 | 1376 | 13.68 | 1383 | 13.98 | 1390 | 14.28 | 1396 | 14.59 | 1403 | 14.91 | 1416 | 15.51 | 1430 | 16.14 | 1443 | 16.76 |
| 19000 | 3675 | 1436 | 15.29 | 1443 | 15.61 | 1450 | 15.94 | 1456 | 16.26 | 1463 | 16.58 | 1469 | 16.90 | 1475 | 17.22 | 1488 | 17.87 | 1500 | 18.52 | 1513 | 19.19 |
| 20000 | 3869 | 1510 | 17.76 | 1517 | 18.09 | 1523 | 18.44 | 1529 | 18.78 | 1536 | 19.12 | 1542 | 19.45 | 1548 | 19.79 | 1560 | 20.49 | 1571 | 21.15 | 1583 | 21.84 |
| 22000 | 4256 | 1659 | 23.48 | 1665 | 23.85 | 1670 | 24.22 | 1676 | 24.60 | 1682 | 24.98 | 1688 | 25.35 | 1693 | 25.72 | 1704 | 26.46 | 1715 | 27.23 | 1726 | 27.95 |
| 24000 | 4643 | 1808 | 30.33 | 1813 | 30.73 | 1818 | 31.14 | 1824 | 31.55 | 1829 | 31.96 | 1834 | 32.38 | 1839 | 32.78 | 1850 | 33.58 | 1859 | 34.39 | 1870 | 35.22 |

| Volume | O.Vel | 2"SP | | 2-1/2"SP | | 3"SP | | 3-1/2"SP | | 4"SP | | 4-1/2"SP | | 5"SP | | 5-1/2"SP | | 6"SP | | 6-1/2"SP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CFM | FPM | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 5500 | 1064 | 741 | 2.18 | | | | | | | | | | | | | | | | | | |
| 6000 | 1161 | 758 | 2.40 | 823 | 2.97 | | | | | | | | | | | | | | | | |
| 6500 | 1257 | 777 | 2.64 | 840 | 3.24 | 900 | 3.86 | | | | | | | | | | | | | | |
| 7000 | 1354 | 798 | 2.90 | 858 | 3.52 | 915 | 4.17 | 971 | 4.85 | | | | | | | | | | | | |
| 7500 | 1451 | 821 | 3.18 | 879 | 3.83 | 934 | 4.51 | 986 | 5.20 | 1038 | 5.93 | | | | | | | | | | |
| 8000 | 1548 | 843 | 3.49 | 900 | 4.16 | 953 | 4.87 | 1004 | 5.60 | 1053 | 6.34 | 1102 | 7.11 | 1150 | 7.91 | | | | | | |
| 8500 | 1644 | 866 | 3.83 | 922 | 4.52 | 974 | 5.25 | 1024 | 6.01 | 1071 | 6.78 | 1117 | 7.58 | 1163 | 8.39 | 1208 | 9.23 | | | | |
| 9000 | 1741 | 889 | 4.20 | 945 | 4.92 | 996 | 5.67 | 1044 | 6.45 | 1091 | 7.26 | 1135 | 8.07 | 1179 | 8.91 | 1222 | 9.77 | 1264 | 10.65 | | |
| 9500 | 1838 | 913 | 4.60 | 968 | 5.34 | 1019 | 6.12 | 1066 | 6.92 | 1111 | 7.76 | 1154 | 8.60 | 1197 | 9.47 | 1238 | 10.35 | 1279 | 11.25 | 1319 | 12.18 |
| 10000 | 1934 | 938 | 5.03 | 991 | 5.80 | 1042 | 6.60 | 1088 | 7.43 | 1132 | 8.29 | 1175 | 9.16 | 1216 | 10.05 | 1256 | 10.96 | 1296 | 11.89 | 1335 | 12.84 |
| 11000 | 2128 | 996 | 5.99 | 1039 | 6.83 | 1087 | 7.68 | 1134 | 8.55 | 1177 | 9.45 | 1218 | 10.37 | 1257 | 11.32 | 1296 | 12.28 | 1333 | 13.27 | 1370 | 14.28 |
| 12000 | 2321 | 1057 | 7.09 | 1095 | 8.00 | 1135 | 8.91 | 1180 | 9.84 | 1223 | 10.77 | 1263 | 11.74 | 1301 | 12.73 | 1338 | 13.75 | 1374 | 14.78 | 1409 | 15.84 |
| 13000 | 2515 | 1120 | 8.34 | 1155 | 9.31 | 1191 | 10.29 | 1228 | 11.28 | 1268 | 12.28 | 1309 | 13.29 | 1347 | 14.33 | 1384 | 15.39 | 1418 | 16.47 | 1452 | 17.56 |
| 14000 | 2708 | 1185 | 9.77 | 1218 | 10.80 | 1250 | 11.83 | 1283 | 12.89 | 1318 | 13.95 | 1355 | 15.02 | 1393 | 16.10 | 1429 | 17.20 | 1464 | 18.32 | 1497 | 19.48 |
| 15000 | 2902 | 1251 | 11.37 | 1282 | 12.45 | 1312 | 13.55 | 1343 | 14.67 | 1373 | 15.80 | 1405 | 16.94 | 1439 | 18.09 | 1475 | 19.24 | 1510 | 20.41 | 1543 | 21.59 |
| 16000 | 3095 | 1318 | 13.16 | 1347 | 14.31 | 1376 | 15.47 | 1404 | 16.64 | 1433 | 17.83 | 1461 | 19.04 | 1491 | 20.26 | 1522 | 21.47 | 1555 | 22.69 | 1588 | 23.92 |
| 17000 | 3288 | 1387 | 15.17 | 1414 | 16.38 | 1441 | 17.60 | 1468 | 18.83 | 1494 | 20.07 | 1521 | 21.34 | 1548 | 22.63 | 1575 | 23.90 | 1604 | 25.18 | 1634 | 26.48 |
| 18000 | 3482 | 1455 | 17.39 | 1481 | 18.65 | 1507 | 19.93 | 1532 | 21.24 | 1558 | 22.54 | 1583 | 23.86 | 1608 | 25.19 | 1633 | 26.55 | 1658 | 27.89 | 1685 | 29.26 |
| 19000 | 3675 | 1525 | 19.83 | 1549 | 21.17 | 1574 | 22.52 | 1598 | 23.86 | 1622 | 25.23 | 1646 | 26.62 | 1669 | 28.00 | 1693 | 29.42 | 1717 | 30.83 | 1741 | 32.25 |
| 20000 | 3869 | 1595 | 22.54 | 1618 | 23.92 | 1641 | 25.32 | 1664 | 26.75 | 1687 | 28.17 | 1710 | 29.61 | 1732 | 31.08 | 1755 | 32.52 | 1777 | 34.01 | 1799 | 35.48 |
| 22000 | 4256 | 1736 | 28.70 | 1758 | 30.22 | 1778 | 31.75 | 1799 | 33.28 | 1820 | 34.84 | 1840 | 36.38 | 1861 | 37.97 | 1882 | 39.53 | 1902 | 41.15 | 1922 | 42.73 |
| 24000 | 4643 | 1879 | 36.02 | 1898 | 37.65 | 1918 | 39.30 | 1937 | 40.95 | 1956 | 42.63 | 1975 | 44.29 | 1994 | 46.01 | 2012 | 47.68 | 2031 | 49.42 | 2050 | 51.11 |

| Volume | O.Vel | 7"SP | | 8"SP | | 9"SP | | 10"SP | | 11"SP | | 12"SP | | 14"SP | | 16"SP | | 18"SP | | 19"SP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CFM | FPM | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 10000 | 1934 | 1373 | 13.80 | | | | | | | | | | | | | | | | | | |
| 11000 | 2128 | 1406 | 15.29 | 1476 | 17.34 | 1546 | 19.48 | | | | | | | | | | | | | | |
| 12000 | 2321 | 1444 | 16.92 | 1511 | 19.08 | 1576 | 21.31 | 1640 | 23.60 | 1703 | 25.97 | | | | | | | | | | |
| 13000 | 2515 | 1485 | 18.68 | 1550 | 20.97 | 1612 | 23.33 | 1672 | 25.70 | 1732 | 28.13 | 1791 | 30.64 | | | | | | | | |
| 14000 | 2708 | 1529 | 20.65 | 1591 | 23.02 | 1651 | 25.46 | 1709 | 27.96 | 1766 | 30.50 | 1822 | 33.08 | 1931 | 38.42 | | | | | | |
| 15000 | 2902 | 1574 | 22.79 | 1635 | 25.28 | 1694 | 27.82 | 1750 | 30.42 | 1804 | 33.08 | 1858 | 35.78 | 1961 | 41.26 | 2063 | 46.97 | | | | |
| 16000 | 3095 | 1620 | 25.17 | 1680 | 27.72 | 1737 | 30.36 | 1792 | 33.06 | 1845 | 35.82 | 1897 | 38.61 | 1997 | 44.33 | 2094 | 50.21 | 2189 | 56.29 | 2235 | 59.34 |
| 17000 | 3288 | 1666 | 27.79 | 1726 | 30.41 | 1783 | 33.13 | 1836 | 35.91 | 1888 | 38.76 | 1938 | 41.65 | 2036 | 47.63 | 2128 | 53.68 | 2219 | 59.91 | 2264 | 63.08 |
| 18000 | 3482 | 1713 | 30.63 | 1772 | 33.37 | 1828 | 36.15 | 1882 | 39.02 | 1932 | 41.95 | 1981 | 44.94 | 2076 | 51.11 | 2166 | 57.39 | 2254 | 63.81 | | |
| 19000 | 3675 | 1765 | 33.70 | 1818 | 36.57 | 1874 | 39.45 | 1927 | 42.39 | 1978 | 45.40 | 2026 | 48.49 | 2119 | 54.81 | 2207 | 61.32 | | | | |
| 20000 | 3869 | 1822 | 36.99 | 1869 | 39.99 | 1920 | 43.01 | 1973 | 46.04 | 2024 | 49.13 | 2072 | 52.30 | 2163 | 58.79 | 2249 | 65.49 | | | | |
| 22000 | 4256 | 1943 | 44.35 | 1983 | 47.59 | 2025 | 50.87 | 2068 | 54.17 | 2115 | 57.48 | 2162 | 60.81 | 2253 | 67.63 | | | | | | |
| 24000 | 4643 | 2068 | 52.84 | 2105 | 56.31 | 2142 | 59.83 | 2179 | 63.41 | 2217 | 66.97 | 2258 | 70.53 | | | | | | | | |

The BHP shown does not include belt drive losses.

The performance shown is for fan with outlet duct.

Wheel Diameter = 33.00 in.
Outlet Area = 6.26 sq. ft. inside
Maximum BHP = 10.2 x $(RPM/1000)^3$
Tip Speed, fpm = 8.64 x RPM

| | |
|---|---|
| Class I | RPM 1246 |
| Class II | RPM 1624 |
| Class III | RPM 2042 |

Size

# 3300 SISW

## Design 7620 Centrifugal BI Fans

| Volume | O.Vel | 1/4"SP | | 3/8"SP | | 1/2"SP | | 5/8"SP | | 3/4"SP | | 7/8"SP | | 1"SP | | 1-1/4"SP | | 1-1/2"SP | | 1-3/4"SP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CFM | FPM | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 5000 | 799 | 330 | 0.36 | 356 | 0.45 | 383 | 0.55 | 408 | 0.65 | 433 | 0.76 | 456 | 0.88 | 480 | 1.00 | 524 | 1.25 | | | | |
| 5500 | 879 | 354 | 0.44 | 377 | 0.54 | 401 | 0.64 | 425 | 0.75 | 448 | 0.86 | 470 | 0.98 | 492 | 1.11 | 534 | 1.37 | 574 | 1.65 | | |
| 6000 | 959 | 378 | 0.53 | 399 | 0.64 | 420 | 0.75 | 442 | 0.86 | 464 | 0.98 | 486 | 1.10 | 506 | 1.23 | 546 | 1.51 | 584 | 1.80 | 621 | 2.10 |
| 6500 | 1038 | 403 | 0.64 | 422 | 0.75 | 442 | 0.87 | 462 | 0.99 | 482 | 1.11 | 502 | 1.24 | 522 | 1.37 | 560 | 1.65 | 596 | 1.96 | 631 | 2.27 |
| 7000 | 1118 | 428 | 0.76 | 446 | 0.88 | 464 | 1.00 | 482 | 1.13 | 501 | 1.26 | 520 | 1.39 | 539 | 1.53 | 575 | 1.82 | 610 | 2.13 | 644 | 2.46 |
| 7500 | 1198 | 454 | 0.90 | 471 | 1.03 | 487 | 1.15 | 504 | 1.29 | 521 | 1.43 | 539 | 1.57 | 556 | 1.71 | 591 | 2.01 | 624 | 2.32 | 657 | 2.66 |
| 8000 | 1278 | 479 | 1.05 | 496 | 1.19 | 511 | 1.33 | 527 | 1.46 | 542 | 1.61 | 559 | 1.76 | 575 | 1.91 | 608 | 2.21 | 640 | 2.53 | 671 | 2.88 |
| 8500 | 1358 | 505 | 1.22 | 521 | 1.37 | 536 | 1.52 | 550 | 1.66 | 565 | 1.81 | 580 | 1.96 | 595 | 2.12 | 626 | 2.44 | 657 | 2.77 | 687 | 3.12 |
| 9000 | 1438 | 531 | 1.41 | 546 | 1.57 | 560 | 1.73 | 574 | 1.88 | 588 | 2.03 | 602 | 2.19 | 616 | 2.36 | 645 | 2.69 | 674 | 3.03 | 703 | 3.39 |
| 9500 | 1518 | 557 | 1.62 | 572 | 1.79 | 585 | 1.96 | 599 | 2.12 | 612 | 2.28 | 625 | 2.44 | 638 | 2.61 | 665 | 2.96 | 693 | 3.32 | 720 | 3.68 |
| 10000 | 1598 | 583 | 1.84 | 597 | 2.03 | 611 | 2.21 | 623 | 2.38 | 636 | 2.55 | 648 | 2.72 | 660 | 2.89 | 686 | 3.26 | 712 | 3.63 | 738 | 4.00 |
| 11000 | 1757 | 635 | 2.37 | 649 | 2.57 | 662 | 2.78 | 674 | 2.97 | 685 | 3.16 | 696 | 3.34 | 708 | 3.53 | 730 | 3.91 | 753 | 4.31 | 777 | 4.72 |
| 12000 | 1917 | 688 | 2.99 | 701 | 3.21 | 713 | 3.43 | 724 | 3.65 | 735 | 3.87 | 746 | 4.07 | 756 | 4.27 | 777 | 4.68 | 797 | 5.10 | 818 | 5.53 |
| 13000 | 2077 | 742 | 3.72 | 753 | 3.96 | 765 | 4.20 | 775 | 4.44 | 786 | 4.67 | 796 | 4.90 | 806 | 5.12 | 825 | 5.56 | 844 | 6.00 | 863 | 6.46 |
| 14000 | 2237 | 795 | 4.56 | 806 | 4.82 | 817 | 5.08 | 827 | 5.34 | 837 | 5.60 | 847 | 5.85 | 856 | 6.09 | 874 | 6.57 | 892 | 7.04 | 909 | 7.51 |
| 15000 | 2396 | 849 | 5.52 | 859 | 5.80 | 869 | 6.08 | 879 | 6.36 | 888 | 6.64 | 898 | 6.92 | 907 | 7.18 | 924 | 7.70 | 941 | 8.22 | 957 | 8.71 |
| 16000 | 2556 | 903 | 6.62 | 913 | 6.92 | 922 | 7.22 | 931 | 7.51 | 940 | 7.82 | 949 | 8.11 | 958 | 8.40 | 975 | 8.96 | 991 | 9.51 | 1006 | 10.06 |
| 17000 | 2716 | 958 | 7.86 | 966 | 8.17 | 975 | 8.50 | 984 | 8.81 | 992 | 9.13 | 1001 | 9.45 | 1009 | 9.75 | 1025 | 10.37 | 1041 | 10.97 | 1056 | 11.54 |
| 18000 | 2876 | 1012 | 9.25 | 1020 | 9.58 | 1029 | 9.92 | 1037 | 10.26 | 1045 | 10.59 | 1053 | 10.93 | 1061 | 11.26 | 1076 | 11.92 | 1091 | 12.55 | 1106 | 13.19 |
| 19000 | 3036 | 1066 | 10.79 | 1074 | 11.15 | 1082 | 11.50 | 1090 | 11.86 | 1098 | 12.21 | 1105 | 12.56 | 1113 | 12.92 | 1128 | 13.61 | 1142 | 14.31 | 1156 | 14.97 |
| 20000 | 3195 | 1121 | 12.51 | 1128 | 12.89 | 1136 | 13.25 | 1143 | 13.63 | 1151 | 14.01 | 1158 | 14.37 | 1165 | 14.74 | 1180 | 15.49 | 1193 | 16.21 | 1207 | 16.93 |
| 22000 | 3515 | 1230 | 16.48 | 1237 | 16.89 | 1244 | 17.30 | 1250 | 17.71 | 1257 | 18.12 | 1264 | 18.54 | 1271 | 18.94 | 1284 | 19.75 | 1297 | 20.57 | 1309 | 21.36 |
| 24000 | 3834 | 1339 | 21.22 | 1346 | 21.67 | 1352 | 22.13 | 1358 | 22.57 | 1364 | 23.01 | 1371 | 23.46 | 1377 | 23.91 | 1389 | 24.80 | 1401 | 25.68 | 1413 | 26.58 |
| 26000 | 4154 | 1449 | 26.81 | 1455 | 27.30 | 1461 | 27.79 | 1467 | 28.29 | 1472 | 28.76 | 1478 | 29.23 | 1484 | 29.72 | 1495 | 30.71 | 1506 | 31.65 | 1517 | 32.61 |
| 28000 | 4473 | 1558 | 33.33 | 1564 | 33.84 | 1569 | 34.37 | 1575 | 34.90 | 1580 | 35.43 | 1586 | 35.94 | 1591 | 36.45 | 1602 | 37.50 | 1612 | 38.56 | 1622 | 39.56 |
| 30000 | 4793 | 1668 | 40.83 | 1673 | 41.38 | 1678 | 41.94 | 1684 | 42.50 | 1689 | 43.08 | 1694 | 43.64 | 1699 | 44.18 | 1709 | 45.29 | 1719 | 46.41 | 1728 | 47.54 |

| Volume | O.Vel | 2"SP | | 2-1/2"SP | | 3"SP | | 3-1/2"SP | | 4"SP | | 4-1/2"SP | | 5"SP | | 5-1/2"SP | | 6"SP | | 6-1/2"SP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CFM | FPM | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 6500 | 1039 | 666 | 2.60 | | | | | | | | | | | | | | | | | | |
| 7000 | 1118 | 676 | 2.79 | | | | | | | | | | | | | | | | | | |
| 7500 | 1198 | 688 | 3.01 | 749 | 3.74 | | | | | | | | | | | | | | | | |
| 8000 | 1278 | 701 | 3.23 | 760 | 3.99 | 816 | 4.79 | | | | | | | | | | | | | | |
| 8500 | 1358 | 716 | 3.49 | 772 | 4.26 | 826 | 5.08 | 878 | 5.94 | | | | | | | | | | | | |
| 9000 | 1438 | 731 | 3.76 | 785 | 4.55 | 838 | 5.39 | 888 | 6.28 | 937 | 7.19 | | | | | | | | | | |
| 9500 | 1518 | 748 | 4.06 | 800 | 4.87 | 850 | 5.73 | 899 | 6.63 | 946 | 7.56 | 993 | 8.54 | | | | | | | | |
| 10000 | 1598 | 765 | 4.39 | 815 | 5.21 | 864 | 6.09 | 912 | 7.01 | 958 | 7.97 | 1002 | 8.95 | 1046 | 9.98 | | | | | | |
| 11000 | 1757 | 801 | 5.13 | 848 | 5.98 | 894 | 6.89 | 939 | 7.84 | 982 | 8.84 | 1025 | 9.87 | 1066 | 10.94 | 1106 | 12.03 | 1146 | 13.16 | | |
| 12000 | 1917 | 840 | 5.98 | 884 | 6.87 | 927 | 7.81 | 970 | 8.79 | 1010 | 9.82 | 1051 | 10.89 | 1090 | 12.00 | 1128 | 13.14 | 1166 | 14.31 | 1203 | 15.50 |
| 13000 | 2077 | 882 | 6.93 | 922 | 7.89 | 963 | 8.87 | 1003 | 9.88 | 1042 | 10.93 | 1080 | 12.04 | 1117 | 13.19 | 1154 | 14.37 | 1190 | 15.58 | 1225 | 16.81 |
| 14000 | 2237 | 927 | 8.00 | 963 | 9.03 | 1000 | 10.06 | 1038 | 11.11 | 1075 | 12.20 | 1111 | 13.33 | 1147 | 14.50 | 1182 | 15.71 | 1216 | 16.95 | 1250 | 18.24 |
| 15000 | 2397 | 973 | 9.22 | 1007 | 10.28 | 1041 | 11.38 | 1076 | 12.49 | 1111 | 13.62 | 1145 | 14.78 | 1179 | 15.98 | 1213 | 17.22 | 1245 | 18.49 | 1278 | 19.80 |
| 16000 | 2556 | 1021 | 10.59 | 1052 | 11.69 | 1083 | 12.83 | 1115 | 14.01 | 1148 | 15.19 | 1181 | 16.39 | 1213 | 17.62 | 1245 | 18.88 | 1277 | 20.18 | 1308 | 21.52 |
| 17000 | 2716 | 1070 | 12.11 | 1099 | 13.25 | 1128 | 14.44 | 1157 | 15.66 | 1188 | 16.92 | 1218 | 18.17 | 1249 | 19.44 | 1280 | 20.74 | 1310 | 22.07 | 1340 | 23.44 |
| 18000 | 2876 | 1120 | 13.79 | 1147 | 14.99 | 1174 | 16.21 | 1201 | 17.48 | 1229 | 18.79 | 1258 | 20.11 | 1287 | 21.44 | 1316 | 22.78 | 1345 | 24.14 | 1374 | 25.55 |
| 19000 | 3036 | 1170 | 15.63 | 1196 | 16.91 | 1221 | 18.18 | 1247 | 19.48 | 1273 | 20.83 | 1300 | 22.21 | 1327 | 23.60 | 1354 | 25.00 | 1382 | 26.41 | 1409 | 27.85 |
| 20000 | 3195 | 1220 | 17.63 | 1245 | 18.98 | 1270 | 20.32 | 1294 | 21.66 | 1318 | 23.05 | 1343 | 24.48 | 1368 | 25.93 | 1394 | 27.39 | 1420 | 28.86 | 1446 | 30.35 |
| 22000 | 3515 | 1322 | 22.17 | 1346 | 23.71 | 1368 | 25.18 | 1390 | 26.64 | 1412 | 28.13 | 1434 | 29.61 | 1456 | 31.13 | 1479 | 32.72 | 1502 | 34.30 | 1525 | 35.91 |
| 24000 | 3834 | 1424 | 27.44 | 1447 | 29.16 | 1469 | 30.85 | 1489 | 32.44 | 1510 | 34.05 | 1529 | 35.64 | 1549 | 37.24 | 1569 | 38.88 | 1590 | 40.54 | 1610 | 42.27 |
| 26000 | 4154 | 1528 | 33.59 | 1549 | 35.45 | 1570 | 37.29 | 1590 | 39.12 | 1609 | 40.84 | 1628 | 42.61 | 1646 | 44.28 | 1664 | 46.04 | 1682 | 47.75 | 1701 | 49.55 |
| 28000 | 4474 | 1632 | 40.59 | 1652 | 42.65 | 1672 | 44.68 | 1691 | 46.63 | 1709 | 48.59 | 1727 | 50.45 | 1744 | 52.32 | 1761 | 54.17 | 1778 | 56.00 | 1795 | 57.88 |
| 30000 | 4793 | 1738 | 48.62 | 1756 | 50.84 | 1775 | 52.99 | 1793 | 55.18 | 1810 | 57.25 | 1828 | 59.33 | 1844 | 61.36 | 1860 | 63.33 | 1877 | 65.37 | 1892 | 67.28 |

| Volume | O.Vel | 7"SP | | 8"SP | | 9"SP | | 10"SP | | 11"SP | | 12"SP | | 14"SP | | 16"SP | | 18"SP | | 19"SP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CFM | FPM | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 12000 | 1917 | 1239 | 16.72 | | | | | | | | | | | | | | | | | | |
| 13000 | 2077 | 1259 | 18.07 | 1327 | 20.68 | | | | | | | | | | | | | | | | |
| 14000 | 2237 | 1283 | 19.55 | 1348 | 22.22 | 1411 | 25.00 | | | | | | | | | | | | | | |
| 15000 | 2397 | 1309 | 21.14 | 1372 | 23.93 | 1433 | 26.77 | 1492 | 29.71 | 1550 | 32.75 | | | | | | | | | | |
| 16000 | 2556 | 1338 | 22.90 | 1398 | 25.73 | 1457 | 28.69 | 1514 | 31.74 | 1570 | 34.84 | 1624 | 38.05 | | | | | | | | |
| 17000 | 2716 | 1369 | 24.84 | 1427 | 27.73 | 1483 | 30.74 | 1538 | 33.86 | 1592 | 37.06 | 1644 | 40.33 | 1747 | 47.10 | | | | | | |
| 18000 | 2876 | 1402 | 26.96 | 1457 | 29.92 | 1511 | 32.98 | 1564 | 36.16 | 1616 | 39.44 | 1667 | 42.80 | 1767 | 49.75 | 1863 | 56.97 | | | | |
| 19000 | 3036 | 1436 | 29.29 | 1490 | 32.31 | 1542 | 35.42 | 1593 | 38.66 | 1643 | 42.00 | 1693 | 45.45 | 1789 | 52.60 | 1882 | 59.91 | 1973 | 67.60 | | |
| 20000 | 3195 | 1472 | 31.83 | 1524 | 34.91 | 1574 | 38.08 | 1623 | 41.36 | 1672 | 44.77 | 1720 | 48.28 | 1813 | 55.56 | 1903 | 63.07 | 1991 | 70.85 | 2034 | 74.87 |
| 22000 | 3515 | 1549 | 37.54 | 1596 | 40.76 | 1643 | 44.06 | 1689 | 47.45 | 1734 | 50.96 | 1779 | 54.58 | 1867 | 62.10 | 1952 | 69.94 | 2035 | 78.04 | | |
| 24000 | 3834 | 1631 | 43.98 | 1674 | 47.47 | 1717 | 50.98 | 1760 | 54.52 | 1802 | 58.13 | 1844 | 61.85 | 1927 | 69.61 | 2007 | 77.64 | | | | |
| 26000 | 4154 | 1719 | 51.33 | 1757 | 55.03 | 1796 | 58.80 | 1836 | 62.59 | 1875 | 66.40 | 1915 | 70.22 | 1992 | 78.12 | | | | | | |
| 28000 | 4473 | 1812 | 59.73 | 1846 | 63.56 | 1881 | 67.53 | 1917 | 71.59 | 1953 | 75.59 | 1989 | 79.63 | | | | | | | | |
| 30000 | 4793 | 1908 | 69.26 | 1939 | 73.23 | 1971 | 77.31 | 2003 | 81.53 | 2036 | 85.77 | | | | | | | | | | |

The BHP shown does not include belt drive losses.

The performance shown is for fan with outlet duct.



NORTHERN BLOWER®

Wheel Diameter = 36.50 in.
Outlet Area = 7.65 sq. ft. inside
Maximum BHP = 16.9 x $(RPM/1000)^3$
Tip Speed, fpm = 9.56 x RPM

| | |
|---|---|
| Class I | RPM 1126 |
| Class II | RPM 1467 |
| Class III | RPM 1845 |

Size

# 3650 SISW

## Design 7620 Centrifugal BI Fans

| Volume | O.Vel | 1/4"SP | | 3/8"SP | | 1/2"SP | | 5/8"SP | | 3/4"SP | | 7/8"SP | | 1"SP | | 1-1/4"SP | | 1-1/2"SP | | 1-3/4"SP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CFM | FPM | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 7000 | 914 | 330 | 0.6 | 349 | 0.7 | 370 | 0.8 | 391 | 1.0 | 411 | 1.1 | 431 | 1.3 | 450 | 1.4 | 487 | 1.7 | 523 | 2.1 | | |
| 8000 | 1045 | 366 | 0.8 | 383 | 0.9 | 401 | 1.1 | 419 | 1.2 | 437 | 1.4 | 455 | 1.5 | 473 | 1.7 | 507 | 2.0 | 540 | 2.4 | 572 | 2.8 |
| 9000 | 1175 | 403 | 1.0 | 419 | 1.2 | 434 | 1.4 | 450 | 1.5 | 466 | 1.7 | 482 | 1.9 | 498 | 2.0 | 530 | 2.4 | 560 | 2.8 | 590 | 3.2 |
| 10000 | 1306 | 441 | 1.4 | 456 | 1.5 | 470 | 1.7 | 483 | 1.9 | 497 | 2.1 | 512 | 2.2 | 526 | 2.4 | 555 | 2.8 | 584 | 3.2 | 612 | 3.6 |
| 11000 | 1437 | 479 | 1.7 | 493 | 1.9 | 506 | 2.1 | 519 | 2.3 | 531 | 2.5 | 544 | 2.7 | 557 | 2.9 | 583 | 3.3 | 609 | 3.7 | 635 | 4.1 |
| 12000 | 1567 | 518 | 2.1 | 531 | 2.4 | 543 | 2.6 | 555 | 2.8 | 566 | 3.0 | 578 | 3.2 | 589 | 3.4 | 613 | 3.8 | 637 | 4.3 | 661 | 4.7 |
| 13000 | 1698 | 557 | 2.6 | 569 | 2.9 | 581 | 3.1 | 592 | 3.3 | 603 | 3.6 | 613 | 3.8 | 624 | 4.0 | 645 | 4.5 | 667 | 4.9 | 689 | 5.4 |
| 14000 | 1828 | 596 | 3.2 | 607 | 3.5 | 619 | 3.7 | 629 | 4.0 | 639 | 4.2 | 649 | 4.5 | 659 | 4.7 | 678 | 5.2 | 698 | 5.7 | 719 | 6.2 |
| 15000 | 1959 | 635 | 3.9 | 646 | 4.2 | 657 | 4.4 | 667 | 4.7 | 677 | 5.0 | 686 | 5.2 | 695 | 5.5 | 713 | 6.0 | 732 | 6.5 | 750 | 7.1 |
| 16000 | 2090 | 675 | 4.6 | 685 | 4.9 | 695 | 5.2 | 705 | 5.5 | 714 | 5.8 | 723 | 6.1 | 732 | 6.4 | 749 | 6.9 | 766 | 7.4 | 783 | 8.0 |
| 17000 | 2220 | 714 | 5.5 | 724 | 5.8 | 733 | 6.1 | 743 | 6.4 | 752 | 6.7 | 761 | 7.0 | 769 | 7.3 | 786 | 7.9 | 802 | 8.5 | 818 | 9.1 |
| 18000 | 2351 | 754 | 6.4 | 763 | 6.7 | 772 | 7.1 | 781 | 7.4 | 790 | 7.7 | 799 | 8.1 | 807 | 8.4 | 823 | 9.0 | 838 | 9.6 | 853 | 10.2 |
| 19000 | 2481 | 794 | 7.4 | 803 | 7.8 | 811 | 8.2 | 820 | 8.5 | 828 | 8.9 | 836 | 9.2 | 844 | 9.6 | 860 | 10.2 | 874 | 10.9 | 889 | 11.5 |
| 20000 | 2612 | 834 | 8.6 | 842 | 9.0 | 850 | 9.4 | 858 | 9.7 | 867 | 10.1 | 874 | 10.5 | 882 | 10.8 | 897 | 11.5 | 911 | 12.2 | 925 | 12.9 |
| 21000 | 2743 | 874 | 9.9 | 882 | 10.3 | 890 | 10.7 | 897 | 11.1 | 905 | 11.4 | 913 | 11.8 | 920 | 12.2 | 935 | 13.0 | 949 | 13.7 | 962 | 14.4 |
| 22000 | 2873 | 914 | 11.3 | 922 | 11.7 | 929 | 12.1 | 937 | 12.5 | 944 | 12.9 | 951 | 13.3 | 958 | 13.7 | 972 | 14.5 | 986 | 15.3 | 999 | 16.1 |
| 24000 | 3134 | 994 | 14.5 | 1001 | 14.9 | 1008 | 15.4 | 1015 | 15.8 | 1022 | 16.3 | 1029 | 16.7 | 1035 | 17.2 | 1048 | 18.0 | 1061 | 18.9 | 1074 | 19.8 |
| 26000 | 3395 | 1075 | 18.2 | 1082 | 18.7 | 1088 | 19.2 | 1094 | 19.7 | 1101 | 20.2 | 1107 | 20.7 | 1113 | 21.1 | 1125 | 22.1 | 1137 | 23.1 | 1149 | 24.0 |
| 28000 | 3657 | 1156 | 22.6 | 1162 | 23.1 | 1168 | 23.7 | 1174 | 24.2 | 1180 | 24.7 | 1186 | 25.2 | 1191 | 25.8 | 1203 | 26.8 | 1214 | 27.8 | 1225 | 28.8 |
| 30000 | 3918 | 1237 | 27.6 | 1242 | 28.2 | 1248 | 28.8 | 1254 | 29.3 | 1259 | 29.9 | 1265 | 30.4 | 1270 | 31.0 | 1281 | 32.1 | 1291 | 33.2 | 1302 | 34.4 |
| 32000 | 4179 | 1318 | 33.4 | 1323 | 34.0 | 1328 | 34.6 | 1334 | 35.2 | 1339 | 35.8 | 1344 | 36.4 | 1349 | 37.0 | 1359 | 38.2 | 1369 | 39.3 | 1379 | 40.5 |
| 34000 | 4440 | 1399 | 39.9 | 1404 | 40.5 | 1409 | 41.2 | 1414 | 41.8 | 1419 | 42.4 | 1423 | 43.1 | 1428 | 43.7 | 1438 | 45.0 | 1447 | 46.2 | 1457 | 47.5 |
| 36000 | 4701 | 1480 | 47.2 | 1484 | 47.8 | 1489 | 48.5 | 1494 | 49.2 | 1499 | 49.9 | 1503 | 50.6 | 1508 | 51.2 | 1517 | 52.5 | 1526 | 53.9 | 1535 | 55.2 |
| 38000 | 4963 | 1561 | 55.3 | 1565 | 56.0 | 1570 | 56.7 | 1574 | 57.5 | 1579 | 58.2 | 1583 | 58.9 | 1588 | 59.6 | 1596 | 61.0 | 1605 | 62.4 | 1614 | 63.8 |

| Volume | O.Vel | 2"SP | | 2-1/2"SP | | 3"SP | | 3-1/2"SP | | 4"SP | | 4-1/2"SP | | 5"SP | | 5-1/2"SP | | 6"SP | | 6-1/2"SP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CFM | FPM | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 9000 | 1175 | 619 | 3.6 | 674 | 4.5 | | | | | | | | | | | | | | | | |
| 10000 | 1306 | 639 | 4.1 | 691 | 5.0 | 740 | 6.0 | | | | | | | | | | | | | | |
| 11000 | 1437 | 661 | 4.6 | 710 | 5.6 | 757 | 6.6 | 803 | 7.7 | 847 | 8.8 | | | | | | | | | | |
| 12000 | 1567 | 685 | 5.2 | 732 | 6.2 | 776 | 7.3 | 820 | 8.4 | 862 | 9.6 | 903 | 10.8 | | | | | | | | |
| 13000 | 1698 | 712 | 5.9 | 756 | 6.9 | 798 | 8.0 | 839 | 9.2 | 880 | 10.4 | 918 | 11.6 | 956 | 12.9 | 994 | 14.3 | | | | |
| 14000 | 1828 | 739 | 6.7 | 781 | 7.8 | 821 | 8.9 | 861 | 10.1 | 899 | 11.3 | 936 | 12.6 | 973 | 13.9 | 1009 | 15.3 | 1044 | 16.7 | 1078 | 18.1 |
| 15000 | 1959 | 769 | 7.6 | 808 | 8.7 | 847 | 9.9 | 884 | 11.1 | 921 | 12.4 | 957 | 13.7 | 992 | 15.0 | 1026 | 16.5 | 1059 | 17.9 | 1093 | 19.4 |
| 16000 | 2090 | 801 | 8.6 | 837 | 9.8 | 873 | 11.0 | 909 | 12.2 | 944 | 13.5 | 978 | 14.8 | 1012 | 16.2 | 1045 | 17.7 | 1077 | 19.2 | 1109 | 20.7 |
| 17000 | 2220 | 834 | 9.6 | 867 | 10.9 | 901 | 12.1 | 935 | 13.4 | 969 | 14.8 | 1002 | 16.1 | 1034 | 17.6 | 1066 | 19.0 | 1097 | 20.6 | 1128 | 22.1 |
| 18000 | 2351 | 868 | 10.8 | 899 | 12.1 | 930 | 13.4 | 963 | 14.8 | 995 | 16.1 | 1026 | 17.5 | 1057 | 19.0 | 1088 | 20.5 | 1118 | 22.1 | 1148 | 23.7 |
| 19000 | 2481 | 903 | 12.2 | 932 | 13.5 | 961 | 14.8 | 991 | 16.3 | 1022 | 17.7 | 1052 | 19.1 | 1082 | 20.6 | 1112 | 22.1 | 1141 | 23.7 | 1169 | 25.3 |
| 20000 | 2612 | 939 | 13.6 | 966 | 14.9 | 993 | 16.4 | 1022 | 17.8 | 1050 | 19.3 | 1079 | 20.8 | 1108 | 22.3 | 1137 | 23.9 | 1165 | 25.5 | 1192 | 27.1 |
| 21000 | 2743 | 975 | 15.2 | 1001 | 16.6 | 1026 | 18.0 | 1053 | 19.5 | 1080 | 21.1 | 1107 | 22.6 | 1135 | 24.2 | 1162 | 25.8 | 1190 | 27.4 | 1216 | 29.1 |
| 22000 | 2873 | 1012 | 16.8 | 1036 | 18.3 | 1061 | 19.8 | 1085 | 21.3 | 1111 | 22.9 | 1137 | 24.6 | 1163 | 26.2 | 1189 | 27.8 | 1215 | 29.5 | 1242 | 31.2 |
| 24000 | 3134 | 1086 | 20.6 | 1109 | 22.2 | 1131 | 23.8 | 1153 | 25.5 | 1176 | 27.1 | 1199 | 28.9 | 1223 | 30.6 | 1246 | 32.4 | 1270 | 34.1 | 1294 | 35.9 |
| 26000 | 3395 | 1161 | 24.9 | 1183 | 26.7 | 1204 | 28.5 | 1224 | 30.2 | 1245 | 32.0 | 1265 | 33.8 | 1286 | 35.6 | 1308 | 37.5 | 1330 | 39.4 | 1352 | 41.3 |
| 28000 | 3657 | 1236 | 29.9 | 1257 | 31.8 | 1277 | 33.7 | 1297 | 35.6 | 1316 | 37.5 | 1335 | 39.4 | 1354 | 41.3 | 1373 | 43.2 | 1393 | 45.2 | 1412 | 47.3 |
| 30000 | 3918 | 1312 | 35.4 | 1332 | 37.6 | 1352 | 39.7 | 1370 | 41.7 | 1388 | 43.7 | 1406 | 45.7 | 1423 | 47.7 | 1441 | 49.7 | 1459 | 51.8 | 1477 | 53.9 |
| 32000 | 4179 | 1389 | 41.7 | 1408 | 44.0 | 1426 | 46.3 | 1444 | 48.5 | 1462 | 50.7 | 1479 | 52.8 | 1495 | 54.9 | 1511 | 57.1 | 1528 | 59.2 | 1544 | 61.4 |
| 34000 | 4440 | 1466 | 48.7 | 1484 | 51.2 | 1502 | 53.7 | 1519 | 56.0 | 1536 | 58.4 | 1552 | 60.7 | 1568 | 62.9 | 1583 | 65.2 | 1599 | 67.4 | 1614 | 69.7 |
| 36000 | 4701 | 1544 | 56.5 | 1561 | 59.2 | 1578 | 61.8 | 1595 | 64.4 | 1610 | 66.9 | 1626 | 69.4 | 1641 | 71.7 | 1656 | 74.1 | 1671 | 76.5 | 1685 | 78.9 |
| 38000 | 4963 | 1622 | 65.2 | 1638 | 68.0 | 1654 | 70.8 | 1670 | 73.5 | 1686 | 76.3 | 1701 | 78.8 | 1716 | 81.5 | 1730 | 84.0 | 1744 | 86.5 | 1758 | 89.0 |

| Volume | O.Vel | 7"SP | | 8"SP | | 9"SP | | 10"SP | | 11"SP | | 12"SP | | 14"SP | | 16"SP | | 18"SP | | 19"SP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CFM | FPM | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 15000 | 1959 | 1125 | 20.9 | | | | | | | | | | | | | | | | | | |
| 16000 | 2090 | 1140 | 22.2 | 1202 | 25.4 | | | | | | | | | | | | | | | | |
| 17000 | 2220 | 1158 | 23.7 | 1217 | 27.0 | 1274 | 30.4 | | | | | | | | | | | | | | |
| 18000 | 2351 | 1177 | 25.3 | 1234 | 28.6 | 1289 | 32.1 | 1344 | 35.7 | | | | | | | | | | | | |
| 19000 | 2481 | 1197 | 27.0 | 1253 | 30.4 | 1306 | 34.0 | 1359 | 37.6 | 1410 | 41.4 | 1461 | 45.3 | | | | | | | | |
| 20000 | 2612 | 1219 | 28.8 | 1273 | 32.3 | 1325 | 35.9 | 1376 | 39.7 | 1426 | 43.5 | 1474 | 47.5 | | | | | | | | |
| 21000 | 2743 | 1243 | 30.8 | 1294 | 34.4 | 1345 | 38.0 | 1394 | 41.9 | 1443 | 45.8 | 1490 | 49.8 | 1582 | 58.2 | | | | | | |
| 22000 | 2873 | 1267 | 32.9 | 1317 | 36.6 | 1366 | 40.3 | 1414 | 44.2 | 1461 | 48.2 | 1507 | 52.3 | 1597 | 60.8 | 1684 | 69.6 | | | | |
| 24000 | 3134 | 1318 | 37.7 | 1366 | 41.4 | 1412 | 45.3 | 1457 | 49.3 | 1501 | 53.4 | 1545 | 57.7 | 1631 | 66.5 | 1713 | 75.7 | 1794 | 85.2 | 1833 | 90.0 |
| 26000 | 3395 | 1373 | 43.2 | 1418 | 47.1 | 1462 | 51.0 | 1505 | 55.2 | 1547 | 59.4 | 1588 | 63.8 | 1669 | 72.8 | 1748 | 82.4 | 1824 | 92.1 | | |
| 28000 | 3657 | 1433 | 49.3 | 1473 | 53.4 | 1514 | 57.5 | 1555 | 61.7 | 1595 | 66.1 | 1634 | 70.6 | 1711 | 79.9 | 1786 | 89.6 | | | | |
| 30000 | 3918 | 1495 | 56.0 | 1532 | 60.4 | 1570 | 64.8 | 1608 | 69.2 | 1646 | 73.7 | 1684 | 78.2 | 1757 | 87.7 | 1829 | 97.7 | | | | |
| 32000 | 4179 | 1561 | 63.6 | 1595 | 68.1 | 1630 | 72.7 | 1665 | 77.4 | 1701 | 82.1 | 1736 | 86.7 | 1806 | 96.5 | | | | | | |
| 34000 | 4440 | 1629 | 71.9 | 1661 | 76.6 | 1693 | 81.4 | 1725 | 86.4 | 1758 | 91.3 | 1791 | 96.2 | | | | | | | | |
| 36000 | 4701 | 1700 | 81.3 | 1729 | 86.1 | 1758 | 91.0 | 1788 | 96.1 | 1819 | 101.3 | | | | | | | | | | |
| 38000 | 4963 | 1771 | 91.5 | 1799 | 96.5 | 1826 | 101.5 | | | | | | | | | | | | | | |

The BHP shown does not include belt drive losses.

The performance shown is for fan with outlet duct.

Wheel Diameter = 40.25 in.
Outlet Area = 9.31 sq. ft. inside
Maximum BHP = 27.5 x $(RPM/1000)^3$
Tip Speed, fpm = 10.5 x RPM

| | |
|---|---|
| Class I | RPM 1021 |
| Class II | RPM 1331 |
| Class III | RPM 1674 |

Size

# 4025 SISW

## Design 7620 Centrifugal BI Fans

| Volume | O.Vel | 1/4"SP | | 3/8"SP | | 1/2"SP | | 5/8"SP | | 3/4"SP | | 7/8"SP | | 1"SP | | 1-1/4"SP | | 1-1/2"SP | | 1-3/4"SP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CFM | FPM | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 7000 | 752 | 260 | 0.5 | 283 | 0.6 | 306 | 0.7 | 327 | 0.9 | 348 | 1.1 | 368 | 1.2 | 388 | 1.4 | | | | | | |
| 8000 | 859 | 285 | 0.6 | 305 | 0.8 | 325 | 0.9 | 345 | 1.1 | 364 | 1.2 | 383 | 1.4 | 401 | 1.6 | 436 | 2.0 | | | | |
| 9000 | 967 | 312 | 0.8 | 329 | 1.0 | 346 | 1.1 | 364 | 1.3 | 382 | 1.5 | 399 | 1.7 | 416 | 1.9 | 449 | 2.3 | 480 | 2.7 | 510 | 3.1 |
| 10000 | 1074 | 340 | 1.0 | 355 | 1.2 | 370 | 1.4 | 386 | 1.6 | 402 | 1.7 | 418 | 1.9 | 434 | 2.1 | 464 | 2.6 | 494 | 3.0 | 522 | 3.5 |
| 11000 | 1181 | 367 | 1.3 | 382 | 1.5 | 395 | 1.7 | 409 | 1.9 | 424 | 2.1 | 438 | 2.3 | 453 | 2.5 | 482 | 2.9 | 509 | 3.4 | 536 | 3.9 |
| 12000 | 1289 | 396 | 1.6 | 409 | 1.8 | 422 | 2.0 | 434 | 2.2 | 447 | 2.4 | 460 | 2.7 | 474 | 2.9 | 500 | 3.3 | 527 | 3.8 | 552 | 4.3 |
| 13000 | 1396 | 424 | 1.9 | 437 | 2.2 | 449 | 2.4 | 460 | 2.6 | 472 | 2.8 | 484 | 3.1 | 496 | 3.3 | 521 | 3.8 | 545 | 4.3 | 569 | 4.8 |
| 14000 | 1504 | 453 | 2.3 | 465 | 2.6 | 476 | 2.8 | 487 | 3.1 | 498 | 3.3 | 509 | 3.6 | 520 | 3.8 | 542 | 4.3 | 565 | 4.9 | 588 | 5.4 |
| 15000 | 1611 | 481 | 2.8 | 493 | 3.1 | 504 | 3.3 | 514 | 3.6 | 525 | 3.9 | 535 | 4.1 | 545 | 4.4 | 565 | 4.9 | 587 | 5.5 | 608 | 6.0 |
| 16000 | 1718 | 510 | 3.3 | 521 | 3.6 | 532 | 3.9 | 542 | 4.2 | 552 | 4.5 | 561 | 4.7 | 570 | 5.0 | 589 | 5.6 | 609 | 6.2 | 629 | 6.7 |
| 17000 | 1826 | 540 | 3.9 | 550 | 4.2 | 560 | 4.5 | 570 | 4.8 | 579 | 5.1 | 588 | 5.4 | 597 | 5.7 | 615 | 6.3 | 633 | 6.9 | 651 | 7.5 |
| 18000 | 1933 | 569 | 4.5 | 579 | 4.9 | 588 | 5.2 | 598 | 5.5 | 607 | 5.9 | 616 | 6.2 | 624 | 6.5 | 641 | 7.1 | 657 | 7.7 | 675 | 8.4 |
| 19000 | 2041 | 598 | 5.3 | 608 | 5.6 | 617 | 6.0 | 626 | 6.3 | 635 | 6.7 | 643 | 7.0 | 651 | 7.3 | 667 | 8.0 | 683 | 8.6 | 699 | 9.3 |
| 20000 | 2148 | 628 | 6.1 | 637 | 6.4 | 646 | 6.8 | 654 | 7.2 | 663 | 7.5 | 671 | 7.9 | 679 | 8.2 | 694 | 8.9 | 709 | 9.6 | 724 | 10.3 |
| 21000 | 2255 | 657 | 6.9 | 666 | 7.3 | 674 | 7.7 | 683 | 8.1 | 691 | 8.5 | 699 | 8.9 | 707 | 9.2 | 721 | 10.0 | 736 | 10.7 | 750 | 11.4 |
| 22000 | 2363 | 687 | 7.9 | 695 | 8.3 | 703 | 8.7 | 712 | 9.1 | 719 | 9.5 | 727 | 9.9 | 735 | 10.3 | 749 | 11.1 | 763 | 11.8 | 776 | 12.6 |
| 24000 | 2577 | 747 | 10.1 | 754 | 10.5 | 762 | 11.0 | 769 | 11.4 | 777 | 11.9 | 784 | 12.3 | 791 | 12.8 | 804 | 13.6 | 818 | 14.4 | 830 | 15.2 |
| 26000 | 2792 | 806 | 12.7 | 813 | 13.1 | 820 | 13.6 | 827 | 14.1 | 834 | 14.6 | 841 | 15.1 | 848 | 15.5 | 861 | 16.5 | 873 | 17.4 | 885 | 18.3 |
| 28000 | 3007 | 866 | 15.6 | 873 | 16.2 | 879 | 16.7 | 886 | 17.2 | 892 | 17.7 | 898 | 18.2 | 905 | 18.8 | 917 | 19.8 | 929 | 20.8 | 941 | 21.8 |
| 30000 | 3222 | 926 | 19.1 | 933 | 19.6 | 939 | 20.2 | 945 | 20.7 | 951 | 21.3 | 957 | 21.9 | 962 | 22.4 | 974 | 23.5 | 985 | 24.6 | 997 | 25.7 |
| 32000 | 3437 | 986 | 23.0 | 992 | 23.6 | 998 | 24.2 | 1004 | 24.8 | 1009 | 25.4 | 1015 | 26.0 | 1020 | 26.5 | 1031 | 27.7 | 1042 | 28.9 | 1053 | 30.1 |
| 34000 | 3651 | 1047 | 27.4 | 1052 | 28.0 | 1058 | 28.7 | 1063 | 29.3 | 1068 | 29.9 | 1074 | 30.6 | 1079 | 31.2 | 1089 | 32.4 | 1100 | 33.7 | 1110 | 34.9 |
| 36000 | 3866 | 1107 | 32.3 | 1112 | 33.0 | 1117 | 33.7 | 1122 | 34.4 | 1127 | 35.0 | 1133 | 35.7 | 1138 | 36.4 | 1147 | 37.7 | 1157 | 39.0 | 1167 | 40.4 |
| 38000 | 4081 | 1167 | 37.9 | 1172 | 38.6 | 1177 | 39.3 | 1182 | 40.0 | 1187 | 40.7 | 1192 | 41.4 | 1196 | 42.1 | 1206 | 43.6 | 1215 | 44.9 | 1224 | 46.4 |
| 40000 | 4296 | 1228 | 44.0 | 1232 | 44.8 | 1237 | 45.5 | 1242 | 46.3 | 1246 | 47.0 | 1251 | 47.7 | 1255 | 48.5 | 1264 | 50.0 | 1273 | 51.5 | 1282 | 52.9 |
| 44000 | 4725 | 1349 | 58.2 | 1353 | 59.1 | 1357 | 59.9 | 1361 | 60.7 | 1366 | 61.6 | 1370 | 62.4 | 1374 | 63.2 | 1382 | 64.8 | 1390 | 66.4 | 1398 | 68.1 |

| Volume | O.Vel | 2"SP | | 2-1/2"SP | | 3"SP | | 3-1/2"SP | | 4"SP | | 4-1/2"SP | | 5"SP | | 5-1/2"SP | | 6"SP | | 6-1/2"SP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CFM | FPM | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 10000 | 1074 | 549 | 4.0 | | | | | | | | | | | | | | | | | | |
| 11000 | 1181 | 562 | 4.4 | 612 | 5.5 | | | | | | | | | | | | | | | | |
| 12000 | 1289 | 577 | 4.9 | 624 | 6.0 | 670 | 7.2 | | | | | | | | | | | | | | |
| 13000 | 1396 | 593 | 5.4 | 638 | 6.5 | 682 | 7.8 | 724 | 9.1 | | | | | | | | | | | | |
| 14000 | 1504 | 610 | 6.0 | 654 | 7.2 | 695 | 8.4 | 736 | 9.8 | 774 | 11.1 | 813 | 12.6 | | | | | | | | |
| 15000 | 1611 | 629 | 6.6 | 671 | 7.8 | 711 | 9.2 | 749 | 10.5 | 787 | 12.0 | 823 | 13.4 | 859 | 15.0 | | | | | | |
| 16000 | 1718 | 649 | 7.3 | 689 | 8.6 | 727 | 9.9 | 764 | 11.3 | 800 | 12.8 | 835 | 14.4 | 870 | 15.9 | 903 | 17.5 | | | | |
| 17000 | 1826 | 670 | 8.1 | 708 | 9.4 | 745 | 10.8 | 780 | 12.2 | 815 | 13.7 | 849 | 15.3 | 882 | 16.9 | 914 | 18.6 | 946 | 20.3 | 977 | 22.0 |
| 18000 | 1933 | 692 | 9.0 | 728 | 10.4 | 763 | 11.8 | 797 | 13.2 | 831 | 14.8 | 864 | 16.4 | 896 | 18.0 | 927 | 19.7 | 958 | 21.5 | 988 | 23.2 |
| 19000 | 2041 | 715 | 10.0 | 749 | 11.4 | 783 | 12.8 | 816 | 14.3 | 848 | 15.9 | 880 | 17.5 | 910 | 19.2 | 941 | 20.9 | 971 | 22.7 | 1000 | 24.5 |
| 20000 | 2148 | 739 | 11.0 | 771 | 12.5 | 803 | 14.0 | 835 | 15.5 | 866 | 17.1 | 897 | 18.7 | 926 | 20.5 | 956 | 22.2 | 985 | 24.1 | 1013 | 25.9 |
| 21000 | 2255 | 764 | 12.1 | 794 | 13.6 | 824 | 15.2 | 854 | 16.8 | 884 | 18.4 | 914 | 20.1 | 943 | 21.8 | 971 | 23.6 | 999 | 25.5 | 1027 | 27.4 |
| 22000 | 2363 | 790 | 13.3 | 818 | 14.9 | 846 | 16.5 | 875 | 18.1 | 904 | 19.8 | 933 | 21.5 | 961 | 23.3 | 989 | 25.1 | 1016 | 27.0 | 1043 | 29.0 |
| 24000 | 2577 | 843 | 16.0 | 867 | 17.7 | 893 | 19.4 | 919 | 21.2 | 945 | 22.9 | 972 | 24.7 | 998 | 26.6 | 1025 | 28.4 | 1050 | 30.4 | 1076 | 32.4 |
| 26000 | 2792 | 897 | 19.2 | 920 | 20.9 | 943 | 22.7 | 966 | 24.6 | 990 | 26.5 | 1014 | 28.4 | 1039 | 30.3 | 1063 | 32.3 | 1088 | 34.3 | 1111 | 36.3 |
| 28000 | 3007 | 952 | 22.7 | 973 | 24.6 | 994 | 26.5 | 1016 | 28.4 | 1037 | 30.4 | 1059 | 32.5 | 1082 | 34.5 | 1105 | 36.6 | 1127 | 38.7 | 1150 | 40.8 |
| 30000 | 3222 | 1007 | 26.7 | 1028 | 28.8 | 1048 | 30.8 | 1067 | 32.8 | 1087 | 34.9 | 1107 | 37.0 | 1128 | 39.2 | 1149 | 41.4 | 1170 | 43.6 | 1191 | 45.8 |
| 32000 | 3437 | 1063 | 31.2 | 1083 | 33.5 | 1102 | 35.6 | 1120 | 37.7 | 1139 | 39.9 | 1157 | 42.1 | 1176 | 44.3 | 1195 | 46.6 | 1214 | 49.0 | 1234 | 51.3 |
| 34000 | 3651 | 1120 | 36.2 | 1139 | 38.6 | 1157 | 40.9 | 1175 | 43.2 | 1192 | 45.4 | 1209 | 47.7 | 1226 | 50.0 | 1244 | 52.4 | 1262 | 54.8 | 1280 | 57.3 |
| 36000 | 3866 | 1176 | 41.7 | 1195 | 44.3 | 1212 | 46.8 | 1229 | 49.2 | 1246 | 51.6 | 1262 | 54.0 | 1278 | 56.4 | 1294 | 58.8 | 1311 | 61.3 | 1328 | 63.9 |
| 38000 | 4081 | 1233 | 47.8 | 1251 | 50.5 | 1268 | 53.2 | 1285 | 55.8 | 1300 | 58.3 | 1316 | 60.9 | 1331 | 63.4 | 1346 | 65.9 | 1362 | 68.5 | 1377 | 71.1 |
| 40000 | 4296 | 1291 | 54.4 | 1308 | 57.3 | 1324 | 60.2 | 1340 | 63.0 | 1355 | 65.7 | 1370 | 68.4 | 1385 | 71.0 | 1399 | 73.6 | 1414 | 76.3 | 1428 | 79.0 |
| 44000 | 4725 | 1406 | 69.7 | 1422 | 73.0 | 1437 | 76.1 | 1452 | 79.3 | 1467 | 82.3 | 1481 | 85.4 | 1495 | 88.3 | 1508 | 91.2 | 1521 | 94.1 | 1534 | 97.0 |

| Volume | O.Vel | 7"SP | | 8"SP | | 9"SP | | 10"SP | | 11"SP | | 12"SP | | 14"SP | | 16"SP | | 18"SP | | 19"SP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CFM | FPM | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 18000 | 1933 | 1018 | 25.1 | | | | | | | | | | | | | | | | | | |
| 19000 | 2041 | 1029 | 26.4 | 1085 | 30.2 | | | | | | | | | | | | | | | | |
| 20000 | 2148 | 1041 | 27.8 | 1095 | 31.7 | 1149 | 35.8 | | | | | | | | | | | | | | |
| 21000 | 2255 | 1055 | 29.3 | 1107 | 33.3 | 1159 | 37.5 | 1209 | 41.8 | | | | | | | | | | | | |
| 22000 | 2363 | 1069 | 30.9 | 1120 | 35.0 | 1171 | 39.2 | 1219 | 43.6 | 1268 | 48.1 | | | | | | | | | | |
| 24000 | 2577 | 1101 | 34.5 | 1149 | 38.7 | 1197 | 43.1 | 1244 | 47.6 | 1289 | 52.3 | 1334 | 57.0 | | | | | | | | |
| 26000 | 2792 | 1135 | 38.4 | 1181 | 42.8 | 1227 | 47.3 | 1271 | 52.0 | 1315 | 56.8 | 1357 | 61.8 | 1440 | 71.9 | | | | | | |
| 28000 | 3007 | 1172 | 42.9 | 1217 | 47.4 | 1259 | 52.0 | 1302 | 56.8 | 1343 | 61.8 | 1384 | 66.9 | 1463 | 77.4 | 1540 | 88.3 | | | | |
| 30000 | 3222 | 1212 | 48.0 | 1254 | 52.6 | 1295 | 57.3 | 1335 | 62.3 | 1375 | 67.3 | 1414 | 72.6 | 1490 | 83.4 | 1564 | 94.7 | 1635 | 106.2 | 1671 | 112.3 |
| 32000 | 3437 | 1254 | 53.6 | 1293 | 58.4 | 1332 | 63.2 | 1371 | 68.2 | 1409 | 73.4 | 1446 | 78.8 | 1519 | 89.9 | 1590 | 101.4 | 1659 | 113.5 | | |
| 34000 | 3651 | 1298 | 59.8 | 1335 | 64.7 | 1372 | 69.8 | 1409 | 74.9 | 1445 | 80.2 | 1481 | 85.6 | 1551 | 97.0 | 1619 | 108.8 | | | | |
| 36000 | 3866 | 1344 | 66.4 | 1379 | 71.7 | 1414 | 76.9 | 1449 | 82.2 | 1483 | 87.6 | 1518 | 93.2 | 1585 | 104.7 | 1650 | 116.8 | | | | |
| 38000 | 4081 | 1393 | 73.7 | 1425 | 79.2 | 1457 | 84.7 | 1490 | 90.2 | 1523 | 95.8 | 1556 | 101.5 | 1621 | 113.2 | | | | | | |
| 40000 | 4296 | 1443 | 81.7 | 1473 | 87.3 | 1503 | 93.1 | 1534 | 98.8 | 1565 | 104.6 | 1596 | 110.5 | 1659 | 122.4 | | | | | | |
| 44000 | 4725 | 1547 | 99.9 | 1573 | 105.7 | 1600 | 111.8 | 1627 | 118.0 | 1655 | 124.3 | | | | | | | | | | |

The BHP shown does not include belt drive losses.

The performance shown is for fan with outlet duct.



NORTHERN BLOWER®

Wheel Diameter = 44.50 in.
Outlet Area = 11.37 sq. ft. inside
Maximum BHP = 45.1 x $(RPM/1000)^3$
Tip Speed, fpm = 11.7 x RPM

| | |
|---|---|
| Class I | RPM 922 |
| Class II | RPM 1201 |
| Class III | RPM 1511 |

Size

# 4450 SISW

## Design 7620 Centrifugal BI Fans

| Volume | O.Vel | 1/4"SP | | 3/8"SP | | 1/2"SP | | 5/8"SP | | 3/4"SP | | 7/8"SP | | 1"SP | | 1-1/4"SP | | 1-1/2"SP | | 1-3/4"SP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CFM | FPM | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 8000 | 704 | 226 | 0.5 | 249 | 0.7 | 270 | 0.8 | 290 | 1.0 | 309 | 1.2 | 327 | 1.3 | 345 | 1.5 | | | | | | |
| 9000 | 792 | 244 | 0.6 | 264 | 0.8 | 284 | 1.0 | 302 | 1.1 | 320 | 1.3 | 338 | 1.5 | 354 | 1.7 | 386 | 2.2 | | | | |
| 10000 | 879 | 263 | 0.8 | 281 | 1.0 | 299 | 1.2 | 316 | 1.3 | 333 | 1.5 | 349 | 1.7 | 365 | 2.0 | 395 | 2.4 | 424 | 2.9 | | |
| 11000 | 967 | 282 | 1.0 | 298 | 1.2 | 315 | 1.4 | 331 | 1.6 | 347 | 1.8 | 362 | 2.0 | 377 | 2.2 | 406 | 2.7 | 434 | 3.2 | 460 | 3.7 |
| 12000 | 1055 | 302 | 1.2 | 317 | 1.4 | 332 | 1.6 | 347 | 1.9 | 362 | 2.1 | 376 | 2.3 | 391 | 2.5 | 418 | 3.0 | 444 | 3.5 | 470 | 4.1 |
| 13000 | 1143 | 322 | 1.4 | 336 | 1.6 | 350 | 1.9 | 364 | 2.2 | 378 | 2.4 | 391 | 2.6 | 405 | 2.8 | 431 | 3.3 | 456 | 3.9 | 480 | 4.4 |
| 14000 | 1231 | 343 | 1.7 | 356 | 1.9 | 369 | 2.2 | 382 | 2.5 | 395 | 2.7 | 407 | 3.0 | 420 | 3.2 | 445 | 3.7 | 469 | 4.3 | 492 | 4.9 |
| 15000 | 1319 | 364 | 2.0 | 376 | 2.2 | 388 | 2.5 | 400 | 2.8 | 412 | 3.1 | 424 | 3.4 | 436 | 3.7 | 460 | 4.2 | 483 | 4.8 | 505 | 5.3 |
| 16000 | 1407 | 385 | 2.3 | 396 | 2.6 | 407 | 2.9 | 419 | 3.2 | 430 | 3.5 | 441 | 3.8 | 453 | 4.1 | 475 | 4.7 | 497 | 5.3 | 518 | 5.9 |
| 17000 | 1495 | 406 | 2.7 | 417 | 3.0 | 427 | 3.3 | 438 | 3.6 | 449 | 4.0 | 459 | 4.3 | 470 | 4.6 | 491 | 5.3 | 512 | 5.8 | 533 | 6.5 |
| 18000 | 1583 | 427 | 3.1 | 437 | 3.4 | 448 | 3.8 | 458 | 4.1 | 468 | 4.4 | 478 | 4.8 | 488 | 5.1 | 508 | 5.9 | 528 | 6.5 | 547 | 7.1 |
| 19000 | 1671 | 449 | 3.6 | 458 | 3.9 | 468 | 4.3 | 478 | 4.6 | 487 | 5.0 | 497 | 5.3 | 506 | 5.7 | 525 | 6.5 | 544 | 7.2 | 563 | 7.8 |
| 20000 | 1759 | 471 | 4.1 | 480 | 4.4 | 489 | 4.8 | 498 | 5.2 | 507 | 5.5 | 516 | 5.9 | 525 | 6.3 | 543 | 7.1 | 561 | 7.9 | 579 | 8.6 |
| 22000 | 1935 | 514 | 5.3 | 522 | 5.7 | 531 | 6.1 | 539 | 6.5 | 547 | 6.9 | 555 | 7.3 | 564 | 7.7 | 580 | 8.5 | 596 | 9.4 | 613 | 10.3 |
| 24000 | 2111 | 558 | 6.7 | 566 | 7.1 | 573 | 7.6 | 581 | 8.0 | 588 | 8.4 | 596 | 8.8 | 603 | 9.3 | 618 | 10.2 | 633 | 11.1 | 648 | 12.1 |
| 26000 | 2287 | 602 | 8.4 | 609 | 8.8 | 616 | 9.3 | 623 | 9.7 | 630 | 10.2 | 637 | 10.7 | 644 | 11.1 | 658 | 12.1 | 672 | 13.1 | 686 | 14.1 |
| 28000 | 2463 | 646 | 10.4 | 653 | 10.8 | 659 | 11.3 | 666 | 11.8 | 672 | 12.3 | 679 | 12.8 | 685 | 13.3 | 698 | 14.3 | 711 | 15.3 | 724 | 16.4 |
| 30000 | 2638 | 691 | 12.6 | 697 | 13.1 | 703 | 13.6 | 709 | 14.1 | 715 | 14.6 | 721 | 15.1 | 727 | 15.7 | 739 | 16.8 | 751 | 17.9 | 763 | 19.0 |
| 32000 | 2814 | 735 | 15.1 | 741 | 15.7 | 747 | 16.2 | 752 | 16.7 | 758 | 17.3 | 763 | 17.8 | 769 | 18.4 | 780 | 19.5 | 791 | 20.7 | 803 | 21.9 |
| 34000 | 2990 | 780 | 18.0 | 785 | 18.6 | 790 | 19.1 | 796 | 19.7 | 801 | 20.3 | 806 | 20.9 | 811 | 21.4 | 822 | 22.6 | 833 | 23.9 | 843 | 25.1 |
| 36000 | 3166 | 824 | 21.2 | 830 | 21.8 | 835 | 22.4 | 840 | 23.0 | 844 | 23.6 | 849 | 24.2 | 854 | 24.8 | 864 | 26.1 | 874 | 27.4 | 884 | 28.7 |
| 38000 | 3342 | 869 | 24.8 | 874 | 25.5 | 879 | 26.1 | 883 | 26.7 | 888 | 27.3 | 893 | 28.0 | 898 | 28.6 | 907 | 29.9 | 916 | 31.3 | 926 | 32.6 |
| 40000 | 3518 | 914 | 28.8 | 918 | 29.5 | 923 | 30.2 | 928 | 30.8 | 932 | 31.5 | 936 | 32.1 | 941 | 32.8 | 950 | 34.2 | 959 | 35.6 | 968 | 37.0 |
| 44000 | 3870 | 1003 | 38.1 | 1008 | 38.8 | 1012 | 39.5 | 1016 | 40.3 | 1020 | 41.0 | 1024 | 41.7 | 1028 | 42.4 | 1036 | 43.9 | 1044 | 45.4 | 1052 | 46.9 |
| 48000 | 4222 | 1093 | 49.2 | 1097 | 49.9 | 1101 | 50.7 | 1105 | 51.5 | 1109 | 52.3 | 1112 | 53.1 | 1116 | 53.9 | 1123 | 55.5 | 1131 | 57.1 | 1138 | 58.7 |
| 52000 | 4573 | 1183 | 62.2 | 1187 | 63.0 | 1190 | 63.9 | 1194 | 64.7 | 1197 | 65.6 | 1201 | 66.5 | 1204 | 67.3 | 1211 | 69.0 | 1218 | 70.7 | 1225 | 72.5 |
| 56000 | 4925 | 1273 | 77.4 | 1276 | 78.3 | 1280 | 79.2 | 1283 | 80.1 | 1286 | 81.1 | 1290 | 82.0 | 1293 | 82.9 | 1299 | 84.7 | 1305 | 86.5 | 1312 | 88.4 |

| Volume | O.Vel | 2"SP | | 2-1/2"SP | | 3"SP | | 3-1/2"SP | | 4"SP | | 4-1/2"SP | | 5"SP | | 5-1/2"SP | | 6"SP | | 6-1/2"SP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CFM | FPM | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 12000 | 1055 | 493 | 4.6 | | | | | | | | | | | | | | | | | | |
| 13000 | 1143 | 504 | 5.0 | 548 | 6.2 | | | | | | | | | | | | | | | | |
| 14000 | 1231 | 515 | 5.5 | 557 | 6.7 | 597 | 8.0 | | | | | | | | | | | | | | |
| 15000 | 1319 | 526 | 6.0 | 568 | 7.3 | 607 | 8.6 | 644 | 10.1 | | | | | | | | | | | | |
| 16000 | 1407 | 539 | 6.5 | 579 | 7.9 | 617 | 9.3 | 653 | 10.7 | 688 | 12.3 | | | | | | | | | | |
| 17000 | 1495 | 552 | 7.1 | 591 | 8.5 | 628 | 9.9 | 664 | 11.5 | 697 | 13.0 | 730 | 14.6 | | | | | | | | |
| 18000 | 1583 | 567 | 7.8 | 604 | 9.2 | 640 | 10.7 | 674 | 12.2 | 707 | 13.9 | 739 | 15.5 | 770 | 17.2 | | | | | | |
| 19000 | 1671 | 581 | 8.5 | 617 | 9.9 | 652 | 11.5 | 686 | 13.1 | 718 | 14.7 | 749 | 16.4 | 779 | 18.2 | 808 | 20.0 | | | | |
| 20000 | 1759 | 597 | 9.3 | 631 | 10.7 | 665 | 12.3 | 698 | 13.9 | 729 | 15.6 | 760 | 17.4 | 789 | 19.2 | 818 | 21.1 | 845 | 22.9 | 873 | 24.9 |
| 22000 | 1935 | 629 | 11.1 | 661 | 12.6 | 693 | 14.2 | 724 | 15.9 | 753 | 17.7 | 782 | 19.5 | 811 | 21.4 | 838 | 23.4 | 865 | 25.4 | 891 | 27.4 |
| 24000 | 2111 | 663 | 13.0 | 693 | 14.8 | 723 | 16.5 | 752 | 18.2 | 780 | 20.0 | 807 | 21.9 | 834 | 23.9 | 861 | 25.9 | 886 | 28.0 | 912 | 30.1 |
| 26000 | 2287 | 699 | 15.1 | 727 | 17.2 | 754 | 19.1 | 781 | 20.8 | 808 | 22.7 | 834 | 24.6 | 860 | 26.7 | 885 | 28.8 | 910 | 30.9 | 934 | 33.1 |
| 28000 | 2463 | 737 | 17.5 | 762 | 19.7 | 788 | 21.9 | 813 | 23.9 | 838 | 25.8 | 863 | 27.7 | 888 | 29.8 | 912 | 32.0 | 935 | 34.2 | 958 | 36.4 |
| 30000 | 2638 | 775 | 20.1 | 799 | 22.4 | 823 | 24.8 | 847 | 27.2 | 870 | 29.3 | 894 | 31.3 | 917 | 33.4 | 940 | 35.6 | 962 | 37.8 | 984 | 40.2 |
| 32000 | 2814 | 814 | 23.1 | 836 | 25.5 | 859 | 28.0 | 881 | 30.6 | 904 | 33.1 | 926 | 35.3 | 948 | 37.5 | 969 | 39.6 | 991 | 41.9 | 1012 | 44.3 |
| 34000 | 2990 | 854 | 26.4 | 875 | 28.9 | 896 | 31.5 | 917 | 34.2 | 938 | 36.9 | 959 | 39.6 | 980 | 42.0 | 1000 | 44.3 | 1021 | 46.5 | 1041 | 48.9 |
| 36000 | 3166 | 894 | 30.0 | 914 | 32.7 | 934 | 35.4 | 954 | 38.2 | 974 | 41.0 | 994 | 43.9 | 1013 | 46.7 | 1033 | 49.2 | 1052 | 51.7 | 1072 | 54.1 |
| 38000 | 3342 | 935 | 34.0 | 954 | 36.8 | 973 | 39.6 | 992 | 42.5 | 1010 | 45.5 | 1029 | 48.5 | 1048 | 51.5 | 1067 | 54.4 | 1085 | 57.2 | 1104 | 59.8 |
| 40000 | 3518 | 976 | 38.4 | 994 | 41.3 | 1012 | 44.2 | 1030 | 47.3 | 1048 | 50.4 | 1066 | 53.4 | 1083 | 56.6 | 1101 | 59.8 | 1119 | 62.9 | 1136 | 65.8 |
| 44000 | 3870 | 1060 | 48.4 | 1076 | 51.6 | 1093 | 54.8 | 1109 | 58.0 | 1125 | 61.3 | 1141 | 64.6 | 1157 | 68.0 | 1173 | 71.4 | 1189 | 74.9 | 1206 | 78.4 |
| 48000 | 4222 | 1145 | 60.3 | 1160 | 63.7 | 1175 | 67.1 | 1189 | 70.5 | 1204 | 74.1 | 1219 | 77.6 | 1234 | 81.3 | 1248 | 84.9 | 1263 | 88.6 | 1278 | 92.3 |
| 52000 | 4573 | 1231 | 74.2 | 1245 | 77.8 | 1258 | 81.4 | 1272 | 85.1 | 1285 | 88.8 | 1299 | 92.6 | 1312 | 96.4 | 1326 | 100.3 | 1339 | 104.2 | 1353 | 108.2 |
| 56000 | 4925 | 1318 | 90.3 | 1330 | 94.0 | 1343 | 97.9 | 1355 | 101.8 | 1368 | 105.7 | 1380 | 109.7 | 1392 | 113.8 | 1405 | 117.9 | 1417 | 122.0 | 1430 | 126.2 |

| Volume | O.Vel | 7"SP | | 8"SP | | 9"SP | | 10"SP | | 11"SP | | 12"SP | | 14"SP | | 16"SP | | 18"SP | | 19"SP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CFM | FPM | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 22000 | 1935 | 917 | 29.4 | | | | | | | | | | | | | | | | | | |
| 24000 | 2111 | 936 | 32.3 | 983 | 36.7 | 1030 | 41.2 | | | | | | | | | | | | | | |
| 26000 | 2287 | 958 | 35.4 | 1004 | 40.0 | 1048 | 44.7 | 1091 | 49.5 | 1133 | 54.5 | | | | | | | | | | |
| 28000 | 2463 | 981 | 38.8 | 1026 | 43.5 | 1069 | 48.5 | 1110 | 53.5 | 1150 | 58.7 | 1189 | 63.9 | | | | | | | | |
| 30000 | 2638 | 1006 | 42.5 | 1049 | 47.4 | 1091 | 52.6 | 1131 | 57.8 | 1170 | 63.2 | 1208 | 68.6 | 1281 | 79.8 | | | | | | |
| 32000 | 2814 | 1033 | 46.7 | 1074 | 51.8 | 1114 | 57.0 | 1153 | 62.4 | 1192 | 68.0 | 1229 | 73.6 | 1299 | 85.1 | 1368 | 97.1 | | | | |
| 34000 | 2990 | 1062 | 51.4 | 1101 | 56.5 | 1139 | 61.8 | 1177 | 67.3 | 1214 | 73.0 | 1250 | 78.9 | 1320 | 90.9 | 1386 | 103.2 | 1450 | 115.9 | | |
| 36000 | 3166 | 1091 | 56.5 | 1129 | 61.7 | 1166 | 67.2 | 1202 | 72.8 | 1238 | 78.6 | 1273 | 84.6 | 1341 | 97.1 | 1406 | 109.7 | 1468 | 122.7 | 1498 | 129.3 |
| 38000 | 3342 | 1122 | 62.4 | 1158 | 67.5 | 1194 | 73.0 | 1229 | 78.8 | 1264 | 84.7 | 1297 | 90.8 | 1363 | 103.4 | 1427 | 116.6 | 1487 | 130.0 | | |
| 40000 | 3518 | 1154 | 68.6 | 1189 | 74.0 | 1223 | 79.4 | 1257 | 85.2 | 1290 | 91.3 | 1323 | 97.5 | 1387 | 110.3 | 1449 | 123.7 | 1508 | 137.6 | | |
| 44000 | 3870 | 1221 | 81.8 | 1253 | 88.2 | 1285 | 94.2 | 1316 | 100.1 | 1347 | 106.1 | 1378 | 112.5 | 1438 | 125.9 | 1496 | 139.7 | | | | |
| 48000 | 4222 | 1292 | 96.1 | 1322 | 103.6 | 1351 | 110.9 | 1380 | 117.7 | 1409 | 124.0 | 1437 | 130.3 | 1494 | 143.7 | | | | | | |
| 52000 | 4573 | 1366 | 112.1 | 1393 | 120.3 | 1420 | 128.4 | 1447 | 136.3 | 1473 | 143.8 | 1500 | 151.0 | | | | | | | | |
| 56000 | 4925 | 1442 | 130.3 | 1467 | 138.9 | 1492 | 147.5 | | | | | | | | | | | | | | |

The BHP shown does not include belt drive losses.

The performance shown is for fan with outlet duct.

Wheel Diameter = 4900 in.
Outlet Area = 13.78 sq. ft. inside
Maximum BHP = 73.1 x $(RPM/1000)^3$
Tip Speed, fpm = 12.8 x RPM

| | |
|---|---|
| Class I | RPM 837 |
| Class II | RPM 1090 |
| Class III | RPM 1371 |

Size

# 4900 SISW

## Design 7620 Centrifugal BI Fans

| Volume | O.Vel | 1/4"SP | | 3/8"SP | | 1/2"SP | | 5/8"SP | | 3/4"SP | | 7/8"SP | | 1"SP | | 1-1/4"SP | | 1-1/2"SP | | 1-3/4"SP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CFM | FPM | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 10000 | 725 | 209 | 0.7 | 229 | 0.8 | 248 | 1.0 | 266 | 1.2 | 283 | 1.5 | 299 | 1.7 | 315 | 1.9 | | | | | | |
| 11000 | 798 | 223 | 0.8 | 241 | 1.0 | 259 | 1.2 | 275 | 1.4 | 292 | 1.6 | 307 | 1.9 | 322 | 2.1 | 351 | 2.6 | | | | |
| 12000 | 870 | 237 | 0.9 | 253 | 1.2 | 270 | 1.4 | 286 | 1.6 | 301 | 1.8 | 316 | 2.1 | 331 | 2.3 | 358 | 2.9 | 384 | 3.5 | | |
| 13000 | 943 | 251 | 1.1 | 266 | 1.4 | 282 | 1.6 | 297 | 1.8 | 311 | 2.1 | 326 | 2.3 | 339 | 2.6 | 366 | 3.2 | 391 | 3.8 | 415 | 4.4 |
| 14000 | 1016 | 266 | 1.3 | 280 | 1.6 | 294 | 1.8 | 308 | 2.1 | 322 | 2.3 | 336 | 2.6 | 349 | 2.9 | 375 | 3.5 | 399 | 4.1 | 422 | 4.7 |
| 15000 | 1088 | 281 | 1.5 | 294 | 1.8 | 308 | 2.1 | 321 | 2.4 | 334 | 2.6 | 347 | 2.9 | 359 | 3.2 | 384 | 3.8 | 407 | 4.4 | 430 | 5.1 |
| 16000 | 1161 | 296 | 1.8 | 309 | 2.1 | 321 | 2.4 | 334 | 2.7 | 346 | 3.0 | 358 | 3.3 | 370 | 3.5 | 394 | 4.1 | 416 | 4.8 | 438 | 5.5 |
| 18000 | 1306 | 327 | 2.3 | 338 | 2.6 | 349 | 3.0 | 361 | 3.3 | 372 | 3.7 | 383 | 4.1 | 394 | 4.4 | 415 | 5.0 | 436 | 5.7 | 457 | 6.4 |
| 20000 | 1451 | 359 | 3.0 | 369 | 3.4 | 379 | 3.7 | 389 | 4.1 | 399 | 4.5 | 409 | 4.9 | 419 | 5.3 | 438 | 6.0 | 458 | 6.7 | 477 | 7.5 |
| 22000 | 1596 | 391 | 3.8 | 400 | 4.2 | 409 | 4.6 | 418 | 5.0 | 427 | 5.5 | 436 | 5.9 | 445 | 6.3 | 463 | 7.2 | 481 | 8.0 | 499 | 8.7 |
| 24000 | 1741 | 423 | 4.8 | 432 | 5.3 | 440 | 5.7 | 448 | 6.1 | 457 | 6.6 | 465 | 7.0 | 473 | 7.5 | 490 | 8.5 | 506 | 9.4 | 523 | 10.3 |
| 26000 | 1886 | 456 | 6.0 | 464 | 6.4 | 471 | 6.9 | 479 | 7.4 | 487 | 7.9 | 494 | 8.3 | 502 | 8.8 | 517 | 9.8 | 533 | 10.9 | 548 | 11.9 |
| 28000 | 2031 | 489 | 7.3 | 496 | 7.8 | 503 | 8.3 | 510 | 8.8 | 517 | 9.3 | 524 | 9.8 | 531 | 10.3 | 546 | 11.4 | 560 | 12.5 | 574 | 13.6 |
| 30000 | 2176 | 522 | 8.9 | 528 | 9.4 | 535 | 9.9 | 542 | 10.4 | 548 | 11.0 | 555 | 11.5 | 561 | 12.1 | 575 | 13.2 | 588 | 14.3 | 601 | 15.5 |
| 32000 | 2321 | 555 | 10.6 | 561 | 11.2 | 567 | 11.7 | 573 | 12.3 | 579 | 12.8 | 586 | 13.4 | 592 | 14.0 | 604 | 15.2 | 617 | 16.4 | 629 | 17.6 |
| 34000 | 2466 | 588 | 12.6 | 594 | 13.2 | 600 | 13.8 | 605 | 14.3 | 611 | 14.9 | 617 | 15.5 | 623 | 16.1 | 635 | 17.4 | 646 | 18.6 | 658 | 19.9 |
| 36000 | 2611 | 621 | 14.8 | 627 | 15.4 | 632 | 16.0 | 638 | 16.6 | 643 | 17.3 | 649 | 17.9 | 654 | 18.5 | 665 | 19.8 | 676 | 21.2 | 687 | 22.5 |
| 38000 | 2756 | 654 | 17.3 | 660 | 17.9 | 665 | 18.6 | 670 | 19.2 | 675 | 19.8 | 680 | 20.5 | 686 | 21.2 | 696 | 22.5 | 706 | 23.9 | 717 | 25.3 |
| 40000 | 2901 | 688 | 20.0 | 693 | 20.7 | 698 | 21.4 | 703 | 22.0 | 708 | 22.7 | 712 | 23.4 | 717 | 24.1 | 727 | 25.5 | 737 | 26.9 | 747 | 28.4 |
| 44000 | 3192 | 755 | 26.4 | 759 | 27.1 | 764 | 27.8 | 768 | 28.5 | 773 | 29.3 | 777 | 30.0 | 782 | 30.8 | 791 | 32.3 | 799 | 33.8 | 808 | 35.4 |
| 48000 | 3482 | 822 | 33.9 | 826 | 34.7 | 830 | 35.5 | 834 | 36.3 | 838 | 37.1 | 842 | 37.9 | 846 | 38.7 | 854 | 40.3 | 863 | 42.0 | 871 | 43.7 |
| 52000 | 3772 | 889 | 42.8 | 893 | 43.7 | 897 | 44.6 | 900 | 45.4 | 904 | 46.3 | 908 | 47.1 | 912 | 48.0 | 919 | 49.7 | 927 | 51.5 | 934 | 53.3 |
| 56000 | 4062 | 956 | 53.2 | 959 | 54.1 | 963 | 55.1 | 967 | 56.0 | 970 | 56.9 | 974 | 57.8 | 977 | 58.7 | 984 | 60.6 | 991 | 62.5 | 998 | 64.4 |
| 60000 | 4352 | 1023 | 65.2 | 1027 | 66.2 | 1030 | 67.1 | 1033 | 68.1 | 1037 | 69.1 | 1040 | 70.1 | 1043 | 71.1 | 1050 | 73.0 | 1056 | 75.1 | 1063 | 77.1 |
| 64000 | 4642 | 1091 | 78.8 | 1094 | 79.9 | 1097 | 80.9 | 1100 | 81.9 | 1103 | 83.0 | 1106 | 84.1 | 1109 | 85.1 | 1116 | 87.2 | 1121 | 89.3 | 1128 | 91.5 |
| 68000 | 4933 | 1158 | 94.3 | 1161 | 95.4 | 1164 | 96.5 | 1167 | 97.6 | 1170 | 98.7 | 1173 | 99.8 | 1176 | 101.0 | 1182 | 103.2 | 1187 | 105.4 | 1193 | 107.6 |

| Volume | O.Vel | 2"SP | | 2-1/2"SP | | 3"SP | | 3-1/2"SP | | 4"SP | | 4-1/2"SP | | 5"SP | | 5-1/2"SP | | 6"SP | | 6-1/2"SP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CFM | FPM | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 14000 | 1016 | 444 | 5.4 | | | | | | | | | | | | | | | | | | |
| 15000 | 1088 | 451 | 5.8 | 492 | 7.2 | | | | | | | | | | | | | | | | |
| 16000 | 1161 | 459 | 6.2 | 499 | 7.7 | | | | | | | | | | | | | | | | |
| 18000 | 1306 | 476 | 7.1 | 514 | 8.7 | 550 | 10.4 | 584 | 12.1 | | | | | | | | | | | | |
| 20000 | 1451 | 496 | 8.2 | 531 | 9.9 | 566 | 11.7 | 598 | 13.5 | 629 | 15.3 | | | | | | | | | | |
| 22000 | 1596 | 517 | 9.5 | 550 | 11.3 | 583 | 13.1 | 614 | 15.0 | 644 | 17.0 | 672 | 19.0 | 700 | 21.0 | | | | | | |
| 24000 | 1741 | 539 | 11.1 | 571 | 12.8 | 602 | 14.7 | 631 | 16.7 | 660 | 18.7 | 688 | 20.9 | 715 | 23.0 | 741 | 25.3 | 766 | 27.5 | | |
| 26000 | 1886 | 563 | 12.9 | 593 | 14.6 | 622 | 16.5 | 650 | 18.6 | 678 | 20.7 | 705 | 22.9 | 731 | 25.2 | 756 | 27.6 | 781 | 29.9 | 804 | 32.3 |
| 28000 | 2031 | 588 | 14.7 | 616 | 16.7 | 644 | 18.7 | 671 | 20.7 | 697 | 22.9 | 723 | 25.2 | 748 | 27.5 | 772 | 30.0 | 796 | 32.5 | 819 | 35.0 |
| 30000 | 2176 | 614 | 16.7 | 641 | 19.0 | 667 | 21.1 | 692 | 23.2 | 718 | 25.4 | 742 | 27.8 | 766 | 30.2 | 790 | 32.7 | 813 | 35.2 | 835 | 37.8 |
| 32000 | 2321 | 642 | 18.9 | 666 | 21.4 | 691 | 23.8 | 715 | 26.0 | 739 | 28.2 | 763 | 30.6 | 786 | 33.1 | 808 | 35.6 | 830 | 38.2 | 852 | 40.9 |
| 34000 | 2466 | 670 | 21.3 | 693 | 23.9 | 716 | 26.6 | 739 | 29.1 | 762 | 31.4 | 784 | 33.7 | 807 | 36.2 | 828 | 38.8 | 850 | 41.5 | 871 | 44.3 |
| 36000 | 2611 | 698 | 23.9 | 720 | 26.7 | 742 | 29.6 | 764 | 32.3 | 786 | 34.8 | 807 | 37.3 | 828 | 39.8 | 849 | 42.4 | 870 | 45.2 | 890 | 48.0 |
| 38000 | 2756 | 727 | 26.8 | 748 | 29.7 | 769 | 32.7 | 790 | 35.7 | 810 | 38.5 | 831 | 41.2 | 851 | 43.7 | 871 | 46.4 | 891 | 49.1 | 911 | 52.0 |
| 40000 | 2901 | 757 | 29.9 | 777 | 32.9 | 797 | 36.0 | 816 | 39.2 | 836 | 42.3 | 855 | 45.3 | 875 | 48.1 | 894 | 50.8 | 913 | 53.5 | 932 | 56.4 |
| 44000 | 3192 | 817 | 37.0 | 835 | 40.3 | 853 | 43.6 | 871 | 47.0 | 889 | 50.5 | 907 | 54.0 | 925 | 57.4 | 942 | 60.6 | 960 | 63.6 | 978 | 66.6 |
| 48000 | 3482 | 879 | 45.4 | 895 | 48.9 | 912 | 52.5 | 928 | 56.1 | 945 | 59.8 | 961 | 63.5 | 977 | 67.3 | 994 | 71.1 | 1010 | 74.8 | 1026 | 78.2 |
| 52000 | 3772 | 942 | 55.1 | 957 | 58.9 | 972 | 62.6 | 987 | 66.5 | 1002 | 70.4 | 1017 | 74.4 | 1032 | 78.4 | 1047 | 82.5 | 1062 | 86.6 | 1077 | 90.7 |
| 56000 | 4062 | 1005 | 66.3 | 1019 | 70.2 | 1033 | 74.3 | 1047 | 78.4 | 1061 | 82.5 | 1075 | 86.8 | 1089 | 90.9 | 1103 | 95.3 | 1116 | 99.6 | 1130 | 104.0 |
| 60000 | 4352 | 1069 | 79.1 | 1082 | 83.3 | 1095 | 87.5 | 1108 | 91.8 | 1121 | 96.2 | 1134 | 100.6 | 1147 | 105.1 | 1160 | 109.6 | 1173 | 114.2 | 1185 | 118.7 |
| 64000 | 4642 | 1133 | 93.6 | 1145 | 97.9 | 1158 | 102.4 | 1170 | 106.9 | 1182 | 111.5 | 1194 | 116.2 | 1206 | 120.9 | 1218 | 125.6 | 1230 | 130.4 | 1242 | 135.2 |
| 68000 | 4933 | 1198 | 109.9 | 1210 | 114.4 | 1221 | 119.1 | 1232 | 123.8 | 1243 | 128.7 | 1255 | 133.5 | 1266 | 138.4 | 1278 | 143.5 | 1289 | 148.4 | 1300 | 153.5 |

| Volume | O.Vel | 7"SP | | 8"SP | | 9"SP | | 10"SP | | 11"SP | | 12"SP | | 14"SP | | 16"SP | | 18"SP | | 19"SP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CFM | FPM | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 26000 | 1886 | 827 | 34.7 | | | | | | | | | | | | | | | | | | |
| 28000 | 2031 | 842 | 37.6 | 886 | 42.7 | | | | | | | | | | | | | | | | |
| 30000 | 2176 | 857 | 40.5 | 900 | 46.0 | 941 | 51.5 | | | | | | | | | | | | | | |
| 32000 | 2321 | 874 | 43.7 | 915 | 49.3 | 955 | 55.1 | 994 | 61.0 | 1032 | 67.1 | | | | | | | | | | |
| 34000 | 2466 | 891 | 47.1 | 932 | 52.9 | 971 | 58.9 | 1009 | 65.0 | 1045 | 71.2 | 1080 | 77.6 | | | | | | | | |
| 36000 | 2611 | 910 | 50.8 | 949 | 56.8 | 987 | 62.9 | 1024 | 69.3 | 1060 | 75.7 | 1094 | 82.2 | 1162 | 95.8 | | | | | | |
| 38000 | 2756 | 930 | 54.9 | 968 | 61.0 | 1005 | 67.2 | 1041 | 73.7 | 1076 | 80.4 | 1109 | 87.2 | 1175 | 101.1 | | | | | | |
| 40000 | 2901 | 951 | 59.4 | 988 | 65.6 | 1023 | 71.9 | 1058 | 78.5 | 1092 | 85.4 | 1125 | 92.4 | 1189 | 106.7 | 1250 | 121.3 | | | | |
| 44000 | 3192 | 995 | 69.5 | 1029 | 75.8 | 1063 | 82.4 | 1095 | 89.3 | 1128 | 96.3 | 1159 | 103.6 | 1221 | 118.7 | 1279 | 134.2 | 1335 | 150.0 | 1363 | 158.2 |
| 48000 | 3482 | 1042 | 81.6 | 1074 | 88.0 | 1105 | 94.6 | 1136 | 101.6 | 1167 | 109.0 | 1197 | 116.4 | 1255 | 132.0 | 1311 | 148.2 | 1366 | 164.9 | | |
| 52000 | 3772 | 1092 | 94.7 | 1122 | 102.1 | 1151 | 109.0 | 1180 | 116.0 | 1209 | 123.4 | 1237 | 131.1 | 1292 | 147.1 | 1346 | 163.7 | | | | |
| 56000 | 4062 | 1144 | 108.4 | 1172 | 117.1 | 1199 | 125.1 | 1226 | 132.6 | 1253 | 140.1 | 1280 | 147.7 | 1333 | 164.1 | | | | | | |
| 60000 | 4352 | 1198 | 123.4 | 1224 | 132.8 | 1250 | 142.1 | 1275 | 150.8 | 1301 | 159.1 | 1326 | 167.1 | | | | | | | | |
| 64000 | 4642 | 1254 | 140.2 | 1278 | 150.0 | 1302 | 160.0 | 1326 | 169.8 | 1350 | 179.4 | | | | | | | | | | |
| 68000 | 4933 | 1311 | 158.5 | 1334 | 168.9 | 1357 | 179.4 | | | | | | | | | | | | | | |

The BHP shown does not include belt drive losses.

The performance shown is for fan with outlet duct.



NORTHERN BLOWER®

Wheel Diameter = 54.25 in.
Outlet Area = 16.91 sq. ft. inside
Maximum BHP = 122. x $(RPM/1000)^3$
Tip Speed, fpm = 14.2 x RPM

| | |
|---|---|
| Class I | RPM 756 |
| Class II | RPM 986 |
| Class III | RPM 1240 |

Size

# 5425 SISW

## Design 7620 Centrifugal BI Fans

| Volume | O.Vel | 1/4"SP | | 3/8"SP | | 1/2"SP | | 5/8"SP | | 3/4"SP | | 7/8"SP | | 1"SP | | 1-1/4"SP | | 1-1/2"SP | | 1-3/4"SP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CFM | FPM | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 12000 | 710 | 187 | 0.8 | 205 | 1.0 | 222 | 1.2 | 238 | 1.5 | 254 | 1.7 | 269 | 2.0 | 283 | 2.3 | | | | | | |
| 14000 | 828 | 207 | 1.0 | 222 | 1.3 | 238 | 1.6 | 253 | 1.8 | 267 | 2.1 | 281 | 2.4 | 294 | 2.7 | 320 | 3.4 | | | | |
| 16000 | 947 | 228 | 1.4 | 241 | 1.7 | 255 | 2.0 | 269 | 2.3 | 282 | 2.6 | 295 | 2.9 | 307 | 3.2 | 331 | 3.9 | 354 | 4.6 | 375 | 5.4 |
| 18000 | 1065 | 249 | 1.8 | 262 | 2.1 | 274 | 2.5 | 286 | 2.8 | 298 | 3.1 | 310 | 3.4 | 322 | 3.8 | 344 | 4.5 | 365 | 5.3 | 386 | 6.1 |
| 20000 | 1184 | 272 | 2.2 | 283 | 2.6 | 294 | 3.0 | 305 | 3.4 | 316 | 3.8 | 327 | 4.1 | 338 | 4.5 | 359 | 5.2 | 379 | 6.0 | 398 | 6.9 |
| 22000 | 1302 | 295 | 2.8 | 305 | 3.2 | 315 | 3.6 | 325 | 4.1 | 335 | 4.5 | 345 | 4.9 | 355 | 5.3 | 374 | 6.1 | 394 | 6.9 | 412 | 7.8 |
| 24000 | 1420 | 318 | 3.5 | 327 | 3.9 | 337 | 4.4 | 346 | 4.8 | 355 | 5.3 | 364 | 5.8 | 373 | 6.3 | 392 | 7.1 | 409 | 7.9 | 427 | 8.9 |
| 26000 | 1539 | 342 | 4.3 | 350 | 4.8 | 359 | 5.2 | 367 | 5.7 | 376 | 6.2 | 384 | 6.7 | 393 | 7.3 | 410 | 8.3 | 426 | 9.2 | 443 | 10.1 |
| 28000 | 1657 | 365 | 5.2 | 373 | 5.7 | 381 | 6.2 | 389 | 6.7 | 397 | 7.3 | 405 | 7.8 | 413 | 8.3 | 429 | 9.5 | 444 | 10.5 | 460 | 11.5 |
| 30000 | 1775 | 389 | 6.3 | 397 | 6.8 | 404 | 7.3 | 411 | 7.9 | 419 | 8.4 | 426 | 9.0 | 434 | 9.6 | 448 | 10.7 | 463 | 11.9 | 477 | 13.0 |
| 32000 | 1894 | 413 | 7.4 | 420 | 8.0 | 427 | 8.5 | 434 | 9.1 | 441 | 9.7 | 448 | 10.3 | 455 | 10.9 | 469 | 12.2 | 482 | 13.4 | 496 | 14.7 |
| 34000 | 2012 | 438 | 8.8 | 444 | 9.3 | 450 | 9.9 | 457 | 10.5 | 463 | 11.2 | 470 | 11.8 | 476 | 12.4 | 489 | 13.7 | 502 | 15.1 | 515 | 16.4 |
| 36000 | 2130 | 462 | 10.3 | 468 | 10.9 | 474 | 11.5 | 480 | 12.1 | 486 | 12.8 | 492 | 13.4 | 499 | 14.1 | 511 | 15.5 | 523 | 16.9 | 535 | 18.3 |
| 38000 | 2249 | 486 | 11.9 | 492 | 12.6 | 498 | 13.2 | 503 | 13.9 | 509 | 14.5 | 515 | 15.2 | 521 | 15.9 | 532 | 17.4 | 544 | 18.8 | 556 | 20.3 |
| 40000 | 2367 | 511 | 13.8 | 516 | 14.4 | 521 | 15.1 | 527 | 15.8 | 532 | 16.5 | 538 | 17.2 | 543 | 18.0 | 555 | 19.4 | 566 | 20.9 | 577 | 22.5 |
| 44000 | 2604 | 559 | 18.0 | 564 | 18.8 | 569 | 19.5 | 574 | 20.2 | 579 | 21.0 | 584 | 21.8 | 589 | 22.5 | 599 | 24.1 | 609 | 25.8 | 619 | 27.4 |
| 48000 | 2840 | 609 | 23.1 | 613 | 23.9 | 618 | 24.7 | 622 | 25.5 | 627 | 26.3 | 631 | 27.1 | 636 | 28.0 | 645 | 29.7 | 654 | 31.4 | 663 | 33.2 |
| 52000 | 3077 | 658 | 29.1 | 662 | 30.0 | 666 | 30.8 | 670 | 31.7 | 675 | 32.5 | 679 | 33.4 | 683 | 34.3 | 691 | 36.1 | 700 | 38.0 | 708 | 39.9 |
| 56000 | 3314 | 707 | 36.0 | 711 | 37.0 | 715 | 37.9 | 719 | 38.8 | 723 | 39.7 | 727 | 40.7 | 731 | 41.6 | 738 | 43.5 | 746 | 45.5 | 754 | 47.5 |
| 60000 | 3551 | 756 | 44.0 | 760 | 45.0 | 764 | 46.0 | 768 | 47.0 | 771 | 48.0 | 775 | 49.0 | 778 | 50.0 | 786 | 52.0 | 793 | 54.1 | 800 | 56.2 |
| 64000 | 3787 | 806 | 53.2 | 809 | 54.2 | 813 | 55.3 | 816 | 56.3 | 820 | 57.4 | 823 | 58.4 | 827 | 59.5 | 833 | 61.6 | 840 | 63.8 | 847 | 66.0 |
| 68000 | 4024 | 855 | 63.5 | 859 | 64.6 | 862 | 65.7 | 865 | 66.8 | 869 | 67.9 | 872 | 69.0 | 875 | 70.2 | 881 | 72.4 | 888 | 74.7 | 894 | 77.0 |
| 72000 | 4261 | 905 | 75.1 | 908 | 76.2 | 911 | 77.4 | 914 | 78.6 | 918 | 79.8 | 921 | 81.0 | 923 | 82.1 | 929 | 84.5 | 935 | 86.9 | 941 | 89.3 |
| 76000 | 4497 | 955 | 88.0 | 958 | 89.2 | 960 | 90.5 | 963 | 91.7 | 966 | 93.0 | 969 | 94.2 | 972 | 95.5 | 978 | 97.9 | 983 | 100.5 | 989 | 103.0 |
| 80000 | 4734 | 1004 | 102.4 | 1007 | 103.7 | 1010 | 104.9 | 1013 | 106.3 | 1015 | 107.6 | 1018 | 108.9 | 1021 | 110.2 | 1026 | 112.8 | 1032 | 115.4 | 1037 | 118.1 |

| Volume | O.Vel | 2"SP | | 2-1/2"SP | | 3"SP | | 3-1/2"SP | | 4"SP | | 4-1/2"SP | | 5"SP | | 5-1/2"SP | | 6"SP | | 6-1/2"SP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CFM | FPM | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 18000 | 1065 | 406 | 6.9 | | | | | | | | | | | | | | | | | | |
| 20000 | 1184 | 417 | 7.8 | 453 | 9.6 | | | | | | | | | | | | | | | | |
| 22000 | 1302 | 430 | 8.7 | 464 | 10.7 | 496 | 12.7 | 527 | 14.8 | | | | | | | | | | | | |
| 24000 | 1420 | 444 | 9.8 | 476 | 11.8 | 508 | 13.9 | 537 | 16.1 | 565 | 18.4 | | | | | | | | | | |
| 26000 | 1539 | 459 | 11.0 | 490 | 13.1 | 520 | 15.3 | 549 | 17.6 | 576 | 20.0 | 602 | 22.4 | 628 | 24.9 | | | | | | |
| 28000 | 1657 | 475 | 12.4 | 505 | 14.6 | 533 | 16.8 | 561 | 19.2 | 588 | 21.7 | 613 | 24.2 | 638 | 26.8 | 662 | 29.4 | | | | |
| 30000 | 1775 | 492 | 14.1 | 520 | 16.2 | 548 | 18.5 | 574 | 21.0 | 600 | 23.5 | 625 | 26.2 | 649 | 28.9 | 672 | 31.6 | 695 | 34.4 | 717 | 37.3 |
| 32000 | 1894 | 510 | 15.9 | 537 | 18.1 | 563 | 20.4 | 588 | 22.9 | 613 | 25.5 | 637 | 28.2 | 661 | 31.1 | 684 | 33.9 | 706 | 36.8 | 727 | 39.8 |
| 34000 | 2012 | 528 | 17.8 | 554 | 20.2 | 579 | 22.5 | 603 | 25.1 | 627 | 27.7 | 650 | 30.5 | 673 | 33.4 | 695 | 36.3 | 717 | 39.4 | 738 | 42.4 |
| 36000 | 2130 | 547 | 19.7 | 572 | 22.4 | 596 | 24.9 | 619 | 27.4 | 642 | 30.2 | 665 | 33.0 | 686 | 35.9 | 708 | 38.9 | 729 | 42.1 | 750 | 45.3 |
| 38000 | 2249 | 567 | 21.8 | 590 | 24.8 | 613 | 27.5 | 636 | 30.1 | 658 | 32.8 | 680 | 35.7 | 701 | 38.7 | 722 | 41.8 | 742 | 45.0 | 762 | 48.2 |
| 40000 | 2367 | 588 | 24.0 | 609 | 27.2 | 631 | 30.2 | 653 | 33.0 | 674 | 35.7 | 695 | 38.6 | 716 | 41.7 | 736 | 44.9 | 756 | 48.1 | 775 | 51.4 |
| 44000 | 2604 | 629 | 29.1 | 649 | 32.5 | 669 | 36.1 | 689 | 39.4 | 708 | 42.5 | 728 | 45.4 | 747 | 48.5 | 766 | 51.7 | 785 | 55.1 | 803 | 58.6 |
| 48000 | 2840 | 672 | 35.0 | 691 | 38.6 | 709 | 42.4 | 727 | 46.2 | 745 | 50.0 | 763 | 53.4 | 781 | 56.7 | 799 | 59.9 | 816 | 63.2 | 834 | 66.8 |
| 52000 | | | 3077 | 717 | 41.8 | 734 | 45.7 | 750 | 49.6 | 767 | 53.7 | 784 | 57.8 | 800 | 61.9 | 817 | 65.7 | 834 | 69.4 | 850 | 72.9 |
| 86676.4 | | | | | | | | | | | | | | | | | | | | | |
| 56000 | 3314 | 762 | 49.5 | 777 | 53.7 | 793 | 57.9 | 808 | 62.1 | 824 | 66.5 | 839 | 70.9 | 855 | 75.3 | 870 | 79.7 | 886 | 83.6 | 901 | 87.5 |
| 60000 | 3551 | 807 | 58.3 | 822 | 62.7 | 836 | 67.1 | 851 | 71.6 | 865 | 76.2 | 880 | 80.9 | 894 | 85.6 | 909 | 90.4 | 923 | 95.0 | 937 | 99.5 |
| 64000 | 3787 | 854 | 68.3 | 867 | 72.9 | 881 | 77.5 | 894 | 82.2 | 908 | 87.1 | 921 | 91.9 | 935 | 96.9 | 948 | 101.9 | 962 | 106.9 | 975 | 112.0 |
| 68000 | 4024 | 900 | 79.4 | 913 | 84.2 | 926 | 89.1 | 938 | 94.1 | 951 | 99.1 | 964 | 104.2 | 976 | 109.3 | 989 | 114.6 | 1002 | 119.9 | 1014 | 125.2 |
| 72000 | 4261 | 947 | 91.8 | 959 | 96.8 | 971 | 101.9 | 983 | 107.1 | 995 | 112.4 | 1007 | 117.7 | 1019 | 123.2 | 1031 | 128.5 | 1043 | 134.1 | 1055 | 139.6 |
| 76000 | 4497 | 995 | 105.6 | 1006 | 110.8 | 1017 | 116.1 | 1029 | 121.6 | 1040 | 127.0 | 1051 | 132.7 | 1062 | 138.2 | 1074 | 144.0 | 1085 | 149.6 | 1096 | 155.5 |
| 80000 | 4734 | 1042 | 120.8 | 1053 | 126.2 | 1064 | 131.8 | 1074 | 137.4 | 1085 | 143.1 | 1096 | 148.9 | 1106 | 154.8 | 1117 | 160.6 | 1128 | 166.6 | 1138 | 172.5 |
| 85000 | 5030 | 1102 | 141.9 | 1112 | 147.6 | 1122 | 153.4 | 1132 | 159.3 | 1142 | 165.3 | 1152 | 171.4 | 1162 | 177.4 | 1172 | 183.7 | 1182 | 189.9 | 1192 | 196.1 |

| Volume | O.Vel | 7"SP | | 8"SP | | 9"SP | | 10"SP | | 11"SP | | 12"SP | | 14"SP | | 16"SP | | 18"SP | | 19"SP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CFM | FPM | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 32000 | 1894 | 748 | 42.8 | | | | | | | | | | | | | | | | | | |
| 34000 | 2012 | 759 | 45.6 | 798 | 51.9 | | | | | | | | | | | | | | | | |
| 36000 | 2130 | 770 | 48.5 | 809 | 55.0 | 846 | 61.8 | | | | | | | | | | | | | | |
| 38000 | 2249 | 782 | 51.6 | 820 | 58.4 | 856 | 65.3 | 892 | 72.4 | | | | | | | | | | | | |
| 40000 | 2367 | 794 | 54.8 | 832 | 61.8 | 867 | 69.0 | 902 | 76.3 | 935 | 83.7 | | | | | | | | | | |
| 44000 | 2604 | 821 | 62.1 | 857 | 69.3 | 891 | 76.9 | 924 | 84.6 | 956 | 92.5 | 988 | 100.5 | 1049 | 117.1 | | | | | | |
| 48000 | 2840 | 851 | 70.5 | 884 | 77.9 | 917 | 85.7 | 949 | 93.7 | 980 | 102.1 | 1010 | 110.5 | 1068 | 127.8 | 1124 | 145.6 | | | | |
| 52000 | 3077 | 882 | 80.0 | 914 | 87.7 | 946 | 95.8 | 976 | 104.1 | 1006 | 112.6 | 1035 | 121.4 | 1091 | 139.5 | 1145 | 158.2 | 1196 | 177.1 | 1222 | 186.9 |
| 56000 | 3314 | 916 | 91.3 | 946 | 98.9 | 976 | 107.0 | 1005 | 115.6 | 1033 | 124.3 | 1061 | 133.3 | 1115 | 152.2 | 1167 | 171.5 | 1218 | 191.4 | | |
| 60000 | 3551 | 952 | 103.7 | 980 | 111.8 | 1008 | 119.9 | 1036 | 128.5 | 1063 | 137.6 | 1090 | 146.9 | 1141 | 165.9 | 1192 | 186.1 | | | | |
| 64000 | 3787 | 989 | 116.9 | 1015 | 126.1 | 1042 | 134.7 | 1068 | 143.2 | 1094 | 152.2 | 1119 | 161.6 | 1169 | 181.3 | 1218 | 201.7 | | | | |
| 68000 | 4024 | 1027 | 130.7 | 1052 | 141.1 | 1077 | 150.8 | 1102 | 159.8 | 1127 | 168.8 | 1151 | 178.2 | 1199 | 198.3 | | | | | | |
| 72000 | 4261 | 1067 | 145.3 | 1091 | 156.7 | 1114 | 167.7 | 1138 | 177.8 | 1161 | 187.4 | 1184 | 196.9 | 1230 | 216.8 | | | | | | |
| 76000 | 4497 | 1107 | 161.2 | 1130 | 173.1 | 1152 | 185.0 | 1175 | 196.7 | 1197 | 207.3 | 1219 | 217.5 | | | | | | | | |
| 80000 | 4734 | 1149 | 178.6 | 1170 | 190.9 | 1192 | 203.3 | 1213 | 215.9 | 1234 | 228.1 | | | | | | | | | | |
| 85000 | 5030 | 1202 | 202.5 | 1222 | 215.3 | | | | | | | | | | | | | | | | |

The BHP shown does not include belt drive losses.

The performance shown is for fan with outlet duct.

Northern Blower Inc. certifies that the product shown herein is licensed to bear the AMCA Seal. Fan Sound Ratings are based on tests and procedures in accordance with AMCA Publication 211 and AMCA Publication 311, and comply with the requirements of the AMCA Certified Ratings Program.

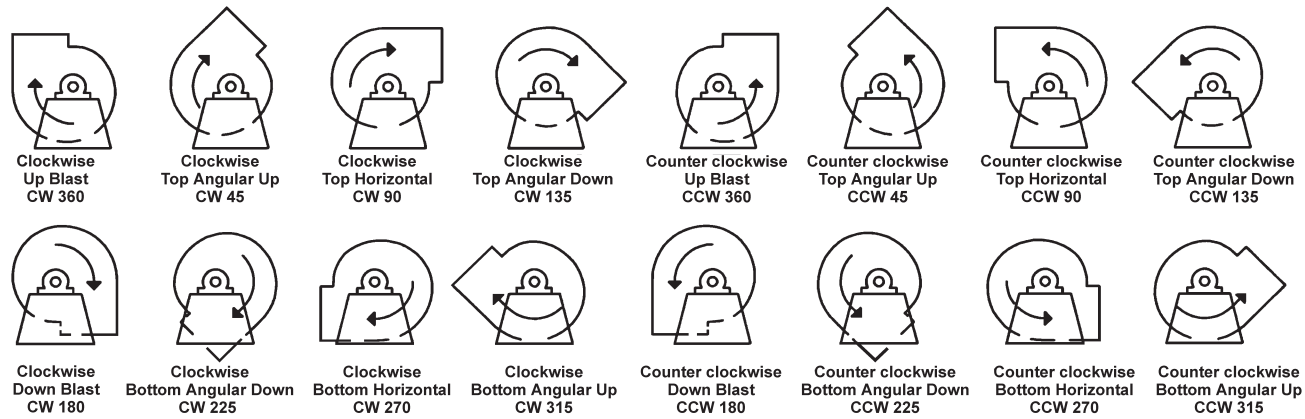
Fan sound data testing was conducted according to AMCA Standard 300 in an AMCA Registered Laboratory. The Certified Sound Ratings Seal provides increased assurance that the published sound ratings are both reliable and accurate.

Sound data was obtained in accordance with AMCA Standard 300, Reverberant Room Method for Sound Testing of Fans, published in accordance with AMCA Standard 301, Methods for Calculating Fan Sound Ratings from Laboratory Test data.

Upon request Northern Blower will provide Sound Level Ratings for any fan selection from this catalogue. Refer also to the Northern Blower Sound Bulletin.



## Designations for Rotation and Discharge of Centrifugal Fans




**Notes:**

1) Direction of rotation is determined from the drive side of the fan.

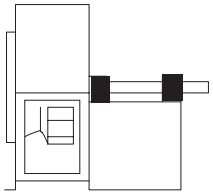
2) On single inlet fans, the drive side is always considered as the side opposite the fan inlet.

3) On double inlet fans with drives on both sides, the drive side is that with the higher powered drive unit.

4) Direction of discharge is determined in accordance with the diagrams. Angle of discharge is referred to the vertical axis of the fan and designated in degrees from such standard reference axis. Angle of discharge may be any intermediate angle as required.

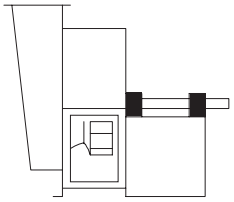
5) For a fan inverted for ceiling suspension, or side wall mounting, the direction of rotation and discharge is determined when the fan is resting on the floor.

SW - Single Width
SI - Single Inlet
DW - Double Width
DI - Double Inlet



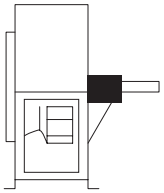
1 SWSI

For belt drive or direct connection. Impeller overhung. Two bearings on base.



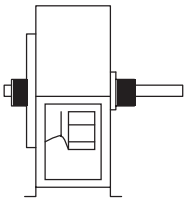
1 SWSI c/w BOX

For belt drive or direct connection. Impeller overhung. Two bearings on base. Inlet box may be self-supporting.



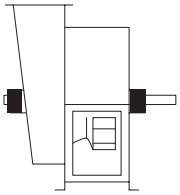
2 SWSI

For belt drive or direct connection. Impeller overhung. Bearings in bracket supported by fan housing.



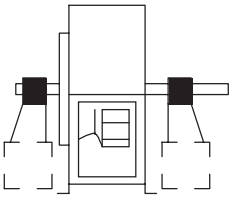
3 SWSI

For belt drive or direct connection. One bearing on each side and supported by fan housing.



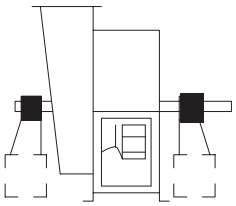
3 SWSI c/w BOX

For belt drive or direct connection. One bearing on each side and supported by fan housing and inlet box. Shaft extending through inlet box.



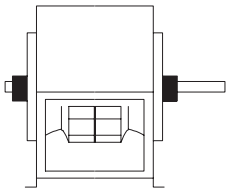
3 SWSI c/w IND. PED.

For belt drive or direct connection. Housing is self-supporting. One bearing on each side supported by independent pedestals.



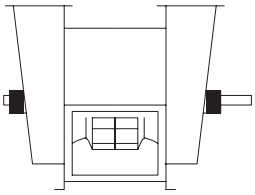
3 SWSI c/w BOX & IND. PED.

For belt drive or direct connection. Housing is self-supporting. One bearing on each side and supported by independent pedestals with shaft extending through inlet box.



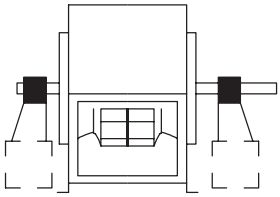
3 DWDI

For belt drive or direct connection. One bearing on each side and supported by fan housing.



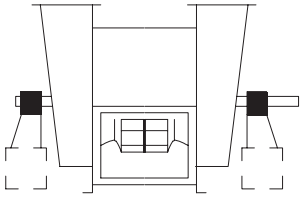
3 DWDI c/w BOXES

For belt drive or direct connection. One bearing on each side and supported by inlet boxes. Shaft extending through inlet boxes.



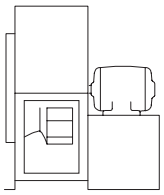
3 DWDI c/w IND. PED.

For belt drive or direct connection. Housing is self-supporting. One bearing on each side and supported by independent pedestals.



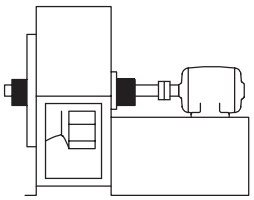
3 DWDI c/w BOXES & IND. PED

For belt drive or direct connection. Housing is self-supporting. One bearing on each side supported by independent pedestals with shaft extending through inlet box.



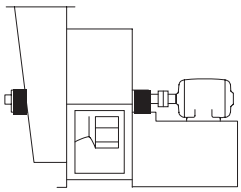
4 SWSI

For direct drive. Impeller overhung on prime mover shaft. No bearings on fan. Prime mover base mounted or integrally directly connected.



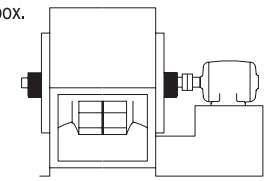
7 SWSI

For belt drive or direct connection. Arrangement 3 plus base for prime mover.



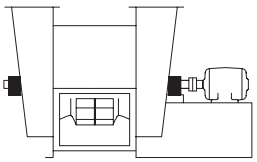
7 SWSI c/w BOX

For belt drive or direct connection. Arrangement 3 plus base for prime mover. Shaft extending through inlet box.



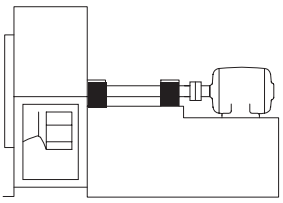
7 DWDI

For belt drive or direct connection. Arrangement 3 plus base for prime mover.



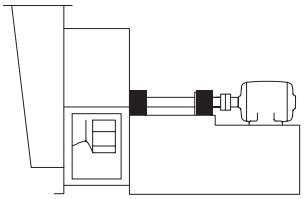
7 DWDI c/w BOXES

For belt drive or direct connection. Arrangement 3 plus base for prime mover. Shaft extending through inlet box.



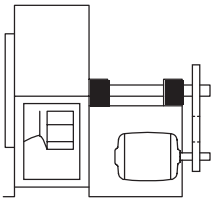
8 SWSI

For belt drive or direct connection. Arrangement 1 plus extended base for prime mover.



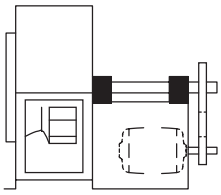
8 SWSI c/w BOX

For belt drive or direct connection. Arrangement 1 plus extended base for prime mover.



9 SWSI

For belt drive. Impeller overhung, two bearings, with prime mover outside base.



10 SWSI

For belt drive. Impeller overhung, two bearings, with prime mover inside base.

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