

Ventilating Sets



Type VSBC Backward Inclined

Type VSFC Forward Curved

Type VSAC Airfoil

Type VSFCJ, VSDDF, VSBCJ Junior Vent Sets

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Ventilating Sets



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

Junior Ventilating Sets



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

Standard Construction Features Class I and II

Type VSBC, VSFC, VSAC

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

Shaft

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

Bearings

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

Drives

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

Motor

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

Motor/Bearing Pedestal (Class I Shown)

Large open motor compartment allows complete access to motor and motor base for quick and easy servicing and belt tension adjustment.

Shutter

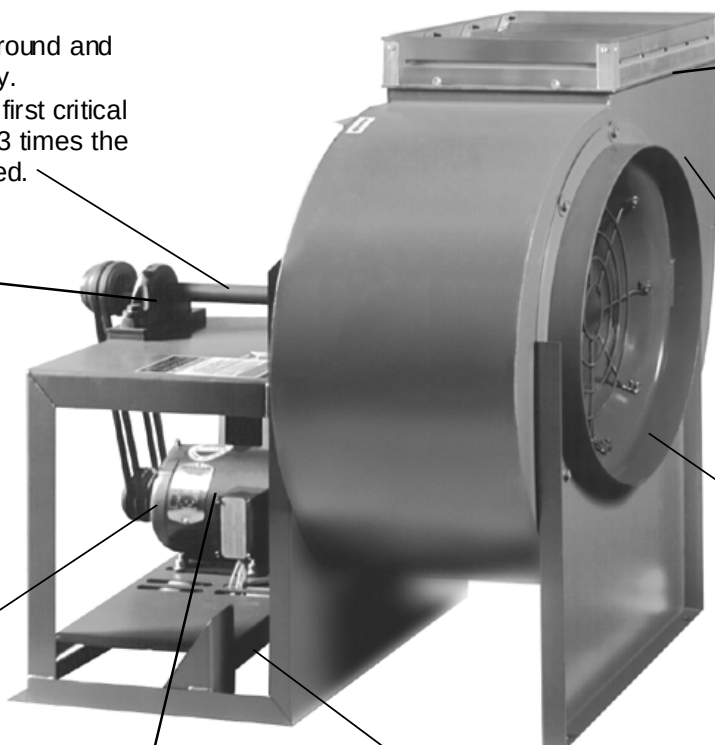
Optional discharge gravity shutter.

Housing

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

Inlet Cone

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



Construction Features

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

Certification



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



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



For sound performance see Eng. Bulletin 2002-10.

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

Class II Construction Features

Type VSBC, VSFC, VSAC

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

Shaft Cooler, Seal and Guard

Included with the optional high temperature package. This assembly provides greater thermal protection for the shaft and bearings.

Shaft and Bearings

Heavy duty Class II shaft and bearings.

Motor/Bearing Pedestal

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

Outlet Flange

Standard on sizes 22 and larger.

Class II Rated Wheel

Constructed of all welded steel for heavy duty applications.

Heat Gap

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

Wheel Selection



ALUMINUM BC
(Backward Inclined)

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



STEEL BC
(Backward Inclined)

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



STEEL FC
(Forward Curved)

All VSFC fans are equipped with riveted steel wheels

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

Accessories

Weather Cover

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



Outlet Shutters

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



Access Doors

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



UL 705 and UL 762

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



These optional packages include:

UL705 Package

- Weather cover with oversized cooling slots
- UL705 label

Variable Inlet Vanes

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



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

Belt Guard

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

Additional Accessories

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

UL762 Package

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

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

Optional Construction

High Temperature Construction

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

Table 1. High Temperature Construction Requirements

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

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

Spark Resistant Construction

AMC TYPE	FAN CONSTRUCTION
A	All Airstream Parts are Aluminum (Wheel, Housing, and Shaft Seal). Limited to 250°F
B	Aluminum Wheel And Rubbing Plate. Limited to 50°F.
C	To 250°F - 12 to 27 VSBC Class I: Aluminum Wheel and Rubbing Plate
	251° To 500°F - 12 to 27 VSBC Class I & II: Steel Wheel, Aluminum Inlet Cone and Rubbing Plate
	All others to 500°F - Aluminum Inlet Cone and Rubbing Plate.

NOTES:

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

Engineering Data

Derating Factors For High Temperature

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

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

Table 2. Derating Factors for High Temperature

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

Table 3. Maximum RPM at 70°F

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

Table 4. Bare Fan Weights (lb)

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

Performance Data

VSBC12

Outlet Area - 0.86 ft² Wheel Dia. - 12.25 Inches Tip Speed - 3.21 x RPM Max. BHP = 0.076 (RPM/1000)³

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

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

VSBC13

Outlet Area - 1.05 ft² Wheel Dia. - 13.50 Inches Tip Speed - 3.53 x RPM Max. BHP = 0.124 (RPM/1000)³

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

MAXIMUM RPM: Class I - 2874 Class II - 3738

VSBC15

Outlet Area - 1.29 ft² Wheel Dia. - 15.00 Inches Tip Speed - 3.93 x RPM Max. BHP = 0.211 (RPM/1000)³

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

MAXIMUM RPM: Class I - 2587 Class II - 3364

Performance is for installation Type B & D: Free or ducted inlet, ducted outlet.
Power rating (bhp) does not include belt drive losses.
Performance ratings do not include the effects of appurtenances in the airstream.

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

Performance Data

VSBC16

Outlet Area - 1.57 ft ²		Wheel Dia. - 16.50 Inches								Tip Speed - 4.32 x RPM								Max. BHP = 0.339 (RPM/1000) ³							
CFM	OV	0.25"		0.5"		1"		1.5"		2"		3"		4"		5"		6"		7"		8"			
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP		
1256	800	648	0.09	777	0.15	992	0.30																		
1570	1000	741	0.14	858	0.21	1051	0.38	1220	0.57																
1884	1200	837	0.20	947	0.29	1125	0.47	1279	0.68	1421	0.90														
2198	1400	937	0.27	1041	0.38	1208	0.59	1351	0.81	1482	1.05	1722	1.59												
2512	1600	1041	0.37	1137	0.49	1295	0.73	1431	0.98	1554	1.24	1778	1.80	1985	2.42										
2826	1800	1149	0.50	1234	0.63	1387	0.90	1516	1.17	1633	1.45	1845	2.05	2038	2.70	2222	3.40								
3140	2000	1258	0.66	1335	0.79	1482	1.10	1604	1.39	1716	1.70	1919	2.33	2103	3.01	2275	3.74	2441	4.53	2601	5.36				
3454	2200	1369	0.84	1440	0.99	1577	1.32	1697	1.65	1803	1.98	1998	2.66	2174	3.37	2339	4.14	2495	4.94	2646	5.80	2793	6.69		
3768	2400	1481	1.06	1546	1.22	1674	1.57	1791	1.94	1894	2.29	2081	3.03	2250	3.78	2409	4.57	2559	5.41	2702	6.29	2841	7.21		
4082	2600	1594	1.33	1654	1.49	1773	1.86	1887	2.26	1987	2.65	2167	3.43	2331	4.23	2484	5.06	2629	5.93	2766	6.84	2899	7.79		
4396	2800	1707	1.63	1764	1.81	1874	2.19	1983	2.62	2082	3.04	2256	3.88	2415	4.73	2563	5.61	2702	6.50	2836	7.45	2964	8.42		
4710	3000	1822	1.97	1874	2.16	1977	2.57	2080	3.01	2177	3.47	2348	4.37	2501	5.28	2645	6.20	2780	7.14	2910	8.12	3035	9.13		
5024	3200	1936	2.37	1986	2.57	2083	3.00	2179	3.46	2273	3.95	2441	4.91	2590	5.87	2730	6.85	2862	7.84	2987	8.84				
5338	3400	2051	2.81	2098	3.03	2190	3.48	2280	3.95	2370	4.46	2536	5.50	2682	6.52	2817	7.54	2945	8.58						
5652	3600	2166	3.31	2211	3.54	2298	4.01	2383	4.50	2469	5.04	2631	6.13	2774	7.21	2906	8.29	3031	9.38						
5966	3800	2282	3.87	2324	4.11	2407	4.60	2488	5.11	2569	5.66	2727	6.82	2869	7.97	2997	9.09								

MAXIMUM RPM: Class I - 2352 Class II - 3058

VSBC18

Outlet Area - 1.92 ft ²		Wheel Dia. - 18.25 Inches								Tip Speed - 4.78 x RPM								Max. BHP = 0.552 (RPM/1000) ³								
CFM	OV	0.25"		0.5"		1"		1.5"		2"		3"		4"		5"		6"		7"		8"				
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP			
1536	800	569	0.10	695	0.17	951	0.42	1126	0.64	1306	1.02	1342	1.19													
1920	1000	651	0.15	757	0.24																					
2304	1200	741	0.22	831	0.32																		1002	0.53	1160	0.76
2688	1400	835	0.31	914	0.42																		1066	0.66	1208	0.91
3072	1600	933	0.43	1003	0.55	1138	0.81	1267	1.09	1391	1.39	1621	2.03	1864	3.06											
3456	1800	1032	0.57	1096	0.71	1217	1.00	1335	1.30	1449	1.62	1663	2.30													
3840	2000	1133	0.75	1191	0.91	1302	1.22	1409	1.55	1514	1.88	1714	2.61										1903	3.40		
4224	2200	1235	0.96	1288	1.13	1391	1.48	1489	1.83	1586	2.20	1773	2.96										1950	3.78		
4608	2400	1338	1.22	1387	1.40	1482	1.78	1573	2.16	1663	2.55	1838	3.36	2005	4.22	2165	5.13	2320	6.11	2469	7.13	2612	8.18			
4992	2600	1441	1.51	1487	1.71	1576	2.12	1661	2.53	1744	2.94	1908	3.81	2066	4.71	2218	5.66	2365	6.67	2507	7.72	2645	8.81			
5376	2800	1545	1.85	1588	2.07	1671	2.50	1751	2.94	1829	3.39	1982	4.30	2132	5.25	2276	6.25	2416	7.28	2553	8.38	2685	9.51			
5760	3000	1650	2.25	1689	2.47	1768	2.94	1843	3.41	1917	3.88	2061	4.86	2202	5.85	2340	6.89	2473	7.97	2604	9.09					
6144	3200	1754	2.69	1792	2.94	1865	3.43	1937	3.93	2007	4.43	2143	5.46	2276	6.51	2407	7.59	2535	8.72	2660	9.88					
6528	3400	1859	3.19	1895	3.46	1964	3.98	2032	4.50	2099	5.04	2227	6.12	2354	7.23	2479	8.36	2601	9.53	2720	10.73					
6912	3600	1965	3.76	1998	4.03	2064	4.59	2129	5.15	2192	5.71	2315	6.85	2435	8.01	2554	9.20	2670	10.40							
7296	3800	2070	4.39	2102	4.68	2165	5.26	2226	5.85	2287	6.45	2404	7.64	2518	8.85	2631	10.09									

MAXIMUM RPM: Class I - 2118 Class II - 2729

VSBC20

Outlet Area - 2.30 ft ²		Wheel Dia. - 20.00 Inches								Tip Speed - 5.24 x RPM				Max. BHP = 0.872 (RPM/1000) ³									
CFM	OV	0.25"		0.5"		1"		1.5"		2"		3"		4"		5"		6"		7"		8"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1840	800	519	0.12	634	0.21																		
2300	1000	593	0.18	690	0.28	868	0.51	1027	0.77														
2760	1200	675	0.27	758	0.38	914	0.63	1058	0.91	1191	1.22												
3220	1400	761	0.37	833	0.51	971	0.78	1102	1.09	1224	1.42												
3680	1600	849	0.51	914	0.66	1037	0.97	1155	1.30	1268	1.66	1479	2.44										
4140	1800	940	0.68	998	0.85	1109	1.20	1217	1.56	1321	1.94	1517	2.76	1700	3.66								
4600	2000	1031	0.89	1085	1.08	1186	1.46	1284	1.85	1380	2.25	1563	3.12	1735	4.07	1899	5.09	2054	6.17				
5060	2200	1124	1.15	1173	1.35	1267	1.77	1357	2.19	1445	2.62	1616	3.54	1778	4.53	1933	5.59	2081	6.71	2223	7.89		
5520	2400	1218	1.45	1263	1.67	1350	2.12	1433	2.58	1515	3.05	1675	4.02	1828	5.05	1975	6.15	2116	7.32	2252	8.54	2383	9.81
5980	2600	1312	1.80	1354	2.04	1435	2.53	1513	3.02	1589	3.52	1739	4.55	1883	5.64	2022	6.78	2157	7.99	2287	9.25	2413	10.56
6440	2800	1407	2.21	1446	2.47	1522	2.99	1595	3.52	1666	4.05	1806	5.14	1943	6.28	2075	7.48	2203	8.72	2328	10.03	2449	11.39
6900	3000	1502	2.68	1538	2.95	1610	3.51	1679	4.07	1746	4.64	1878	5.81	2007	7.00	2133	8.25	2255	9.54	2374	10.88	2490	12.28
7360	3200	1597	3.21	1631	3.50	1699	4.10	1764	4.69	1828	5.30	1952	6.52	2074	7.78	2194	9.08	2311	10.43	2425	11.82		
7820	3400	1692	3.81	1725	4.12	1789	4.75	1851	5.38	1911	6.02	2029	7.31	2145	8.65	2259	10.00	2371	11.40	2480	12.84		
8280	3600	1788	4.48	1819	4.81	1879	5.47	1938	6.14	1996	6.82	2108	8.18	2218	9.57	2327	11.00	2434	12.45				
8740	3800	1884	5.23	1913	5.58	1971	6.28	2027	6.98	2082	7.69	2189	9.12	2294	10.58	2398	12.08						

MAXIMUM RPM: Class I - 1932 Class II - 2490

Performance is for installation Type B & D: Free or ducted inlet, ducted outlet.
Power rating (bhp) does not include belt drive losses.
Performance ratings do not include the effects of appurtenances in the airstream.

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

Performance Data

VSBC22

Outlet Area - 2.85 ft² Wheel Dia. - 22.25 Inches Tip Speed - 5.83 x RPM Max. BHP = 1.49 (RPM/1000)³

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

MAXIMUM RPM: Class I - 1737 Class II - 2238

VSBC24

Outlet Area - 3.45 ft² Wheel Dia. - 24.50 Inches Tip Speed - 6.41 x RPM Max. BHP = 2.40 (RPM/1000)³

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

MAXIMUM RPM: Class I - 1577 Class II - 2033

VSBC27

Outlet Area - 4.19 ft² Wheel Dia. - 27.00 Inches Tip Speed - 7.07 x RPM Max. BHP = 4.05 (RPM/1000)³

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

MAXIMUM RPM: Class I - 1397 Class II - 1803

Performance is for installation Type B & D: Free or ducted inlet, ducted outlet.
Power rating (bhp) does not include belt drive losses.
Performance ratings do not include the effects of appurtenances in the airstream.

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

Performance Data

VSBC30

Outlet Area - 5.17 ft² Wheel Dia. - 30.00 Inches Tip Speed - 7.85 x RPM Max. BHP = 6.86 (RPM/1000)³

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

MAXIMUM RPM: Class I - 1257 Class II - 1623

VSBC33

Outlet Area - 6.26 ft² Wheel Dia. - 33.00 Inches Tip Speed - 8.64 x RPM Max. BHP = 11.05 (RPM/1000)³

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

MAXIMUM RPM: Class I - 1143 Class II - 1475

VSBC36

Outlet Area - 7.66 ft² Wheel Dia. - 36.50 Inches Tip Speed - 9.56 x RPM Max. BHP = 19.42 (RPM/1000)³

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

MAXIMUM RPM: Class I - 995 Class II - 1283

Performance is for installation Type B & D: Free or ducted inlet, ducted outlet.
Power rating (bhp) does not include belt drive losses.
Performance ratings do not include the effects of appurtenances in the airstream.

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

Performance Data

VSFC12

Outlet Area - 0.86 ft² Wheel Dia. - 12.25 Inches Tip Speed - 3.21 x RPM

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

MAXIMUM RPM: Class I - 1559 Class II - 1871

VSFC13

Outlet Area - 1.05 ft² Wheel Dia. - 13.50 Inches Tip Speed - 3.53 x RPM

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

MAXIMUM RPM: Class I - 1415 Class II - 1698

VSFC15

Outlet Area - 1.29 ft² Wheel Dia. - 15.00 Inches Tip Speed - 3.93 x RPM

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

MAXIMUM RPM: Class I - 1273 Class II - 1528

Performance is for installation Type B & D: Free or ducted inlet, ducted outlet.
Power rating (bhp) does not include belt drive losses.
Performance ratings do not include the effects of appurtenances in the airstream.

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

Performance Data

VSFC16

Outlet Area - 1.57 ft² Wheel Dia. - 16.50 Inches Tip Speed - 4.32 x RPM

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

MAXIMUM RPM: Class I - 1157 Class II - 1389

VSFC18

Outlet Area - 1.92 ft² Wheel Dia. - 18.25 Inches Tip Speed - 4.78 x RPM

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

MAXIMUM RPM: Class I - 1046 Class II - 1256

VSFC20

Outlet Area - 2.30 ft² Wheel Dia. - 20.00 Inches Tip Speed - 5.24 x RPM

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

MAXIMUM RPM: Class I - 955 Class II - 1146

Performance is for installation Type B & D: Free or ducted inlet, ducted outlet.
Power rating (bhp) does not include belt drive losses.
Performance ratings do not include the effects of appurtenances in the airstream.

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

Performance Data

VSFC22

Outlet Area - 2.85 ft² Wheel Dia. - 22.25 Inches Tip Speed - 5.83 x RPM

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

MAXIMUM RPM: Class I - 858 Class II - 1030

VSFC24

Outlet Area - 3.45 ft² Wheel Dia. - 24.50 Inches Tip Speed - 6.41 x RPM

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

MAXIMUM RPM: Class I - 780 Class II - 935

VSFC27

Outlet Area - 4.19 ft² Wheel Dia. - 27.00 Inches Tip Speed - 7.07 x RPM

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

MAXIMUM RPM: Class I - 707 Class II - 849

Performance is for installation Type B & D: Free or ducted inlet, ducted outlet.
Power rating (bhp) does not include belt drive losses.
Performance ratings do not include the effects of appurtenances in the airstream.

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

Performance Data

VSFC30

Outlet Area - 5.17 ft² Wheel Dia. - 30.00 Inches Tip Speed - 7.85 x RPM

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

MAXIMUM RPM: Class I - 637 Class II - 764

VSFC33

Outlet Area - 6.26 ft² Wheel Dia. - 33.00 Inches Tip Speed - 8.64 x RPM

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

MAXIMUM RPM: Class I - 579 Class II - 694

VSFC36

Outlet Area - 7.66 ft² Wheel Dia. - 36.50 Inches Tip Speed - 9.56 x RPM

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

MAXIMUM RPM: Class I - 523 Class II - 628

Performance is for installation Type B & D: Free or ducted inlet, ducted outlet.
Power rating (bhp) does not include belt drive losses.
Performance ratings do not include the effects of appurtenances in the airstream.

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

Performance Data

VSAC12

Outlet Area - 0.86 ft² Wheel Dia. - 12.25 Inches Tip Speed - 3.21 x RPM Max. BHP = 0.045 (RPM/1000)³

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

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

VSAC13

Outlet Area - 1.05 ft² Wheel Dia. - 13.50 Inches Tip Speed - 3.53 x RPM Max. BHP = 0.081 (RPM/1000)³

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

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

VSAC15

Outlet Area - 1.29 ft² Wheel Dia. - 15.00 Inches Tip Speed - 3.93 x RPM Max. BHP = 0.125 (RPM/1000)³

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

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

Performance is for installation Type B & D: Free or ducted inlet, ducted outlet.
Power rating (bhp) does not include belt drive losses.
Performance ratings do not include the effects of appurtenances in the airstream.

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

Performance Data

VSAC16

Outlet Area - 1.57 ft² Wheel Dia. - 16.50 Inches Tip Speed - 4.32 x RPM Max. BHP = 0.222 (RPM/1000)³

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

MAXIMUM RPM: Class I - 2673 Class II - 3487

VSAC18

Outlet Area - 1.92 ft² Wheel Dia. - 18.25 Inches Tip Speed - 4.78 x RPM Max. BHP = 0.43 (RPM/1000)³

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

MAXIMUM RPM: Class I - 2294 Class II - 2902

VSAC20

Outlet Area - 2.30 ft² Wheel Dia. - 20.00 Inches Tip Speed - 5.24 x RPM Max. BHP = 0.68 (RPM/1000)³

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

MAXIMUM RPM: Class I - 2093 Class II - 2648

Performance is for installation Type B & D: Free or ducted inlet, ducted outlet.
Power rating (bhp) does not include belt drive losses.
Performance ratings do not include the effects of appurtenances in the airstream.

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

Performance Data

VSAC22

Outlet Area - 2.85 ft² Wheel Dia. - 22.25 Inches Tip Speed - 5.84 x RPM Max. BHP = 1.16 (RPM/1000)³

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

MAXIMUM RPM: Class I - 1881 Class II - 2381

VSAC24

Outlet Area - 3.45 ft² Wheel Dia. - 24.50 Inches Tip Speed - 6.41 x RPM Max. BHP = 1.87 (RPM/1000)³

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

MAXIMUM RPM: Class I - 1708 Class II - 2162

VSAC27

Outlet Area - 4.19 ft² Wheel Dia. - 27.00 Inches Tip Speed - 7.07 x RPM Max. BHP = 2.80 (RPM/1000)³

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

MAXIMUM RPM: Class I - 1558 Class II - 1999

Performance is for installation Type B & D: Free or ducted inlet, ducted outlet.
Power rating (bhp) does not include belt drive losses.
Performance ratings do not include the effects of appurtenances in the airstream.

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

Performance Data

VSAC30

Outlet Area - 5.17 ft² Wheel Dia. - 30.00 Inches Tip Speed - 7.85 x RPM Max. BHP = 4.74 (RPM/1000)³

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

MAXIMUM RPM: Class I - 1402 Class II - 1799

VSAC33

Outlet Area - 6.26 ft² Wheel Dia. - 33.00 Inches Tip Speed - 8.64 x RPM Max. BHP = 7.64 (RPM/1000)³

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

MAXIMUM RPM: Class I - 1275 Class II - 1636

VSAC36

Outlet Area - 7.66 ft² Wheel Dia. - 36.50 Inches Tip Speed - 9.56 x RPM Max. BHP = 14.50 (RPM/1000)³

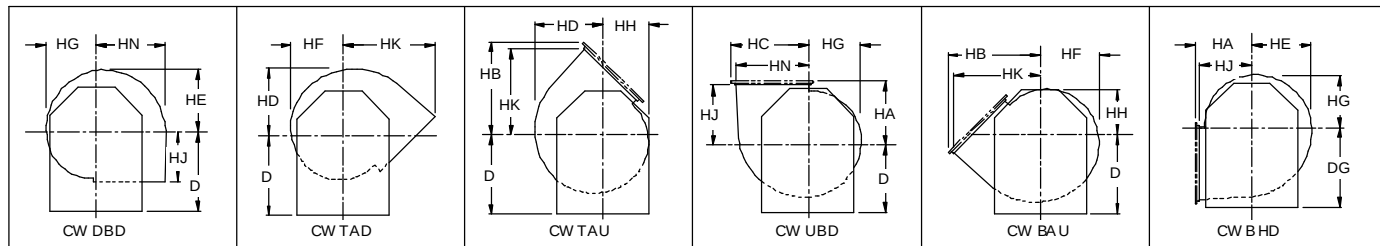
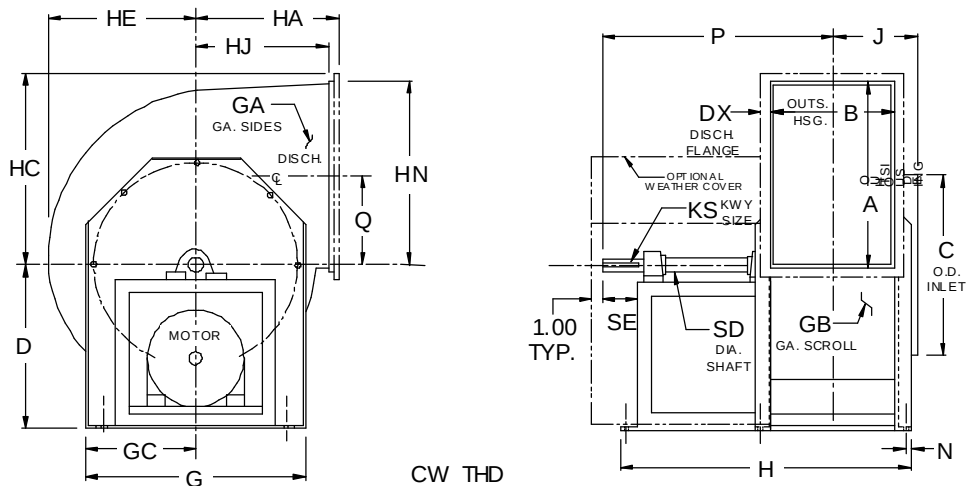
CFM	OV	0.25"		0.5"		1"		1.5"		2"		3"		4"		5"		6"		7"		8"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
6128	800	292	0.36	353	0.62	460	1.21																
7660	1000	335	0.53	388	0.84	481	1.51	565	2.26														
9192	1200	383	0.78	427	1.12	510	1.88	586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

MAXIMUM RPM: Class I - 1071 Class II - 1388

Performance is for installation Type B & D: Free or ducted inlet, ducted outlet.
Power rating (bhp) does not include belt drive losses.
Performance ratings do not include the effects of appurtenances in the airstream.

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

Dimensional Data



NOTES:

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

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

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

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

Direct Drive Junior Ventilating Sets

Type VSDDF

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



Belt Driven Junior Ventilating Sets

Type VSBCJ, VSFCJ

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

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

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

Accessories include:

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



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

For sound performance see Eng. Bulletin 2002-10.



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

VSDDF Direct Drive Ventilating Set

MODEL NO.	MOTOR HP	RPM	0.125" SP		0.25" SP		0.375" SP		0.50" SP		0.625" SP		0.75" SP		1" SP	
			CFM	OV	CFM	OV	CFM	OV	CFM	OV	CFM	OV	CFM	OV	CFM	OV
VSDDF11	1/6	1150	324	1466	254	1149	-	-	-	-	-	-	-	-	-	-
VSDDF17	1/6	1750	545	2466	506	2290	464	2100	421	1905	362	1638	292	1321	-	-
VSDDF11	1/6	1150	668	2264	586	1986	516	1749	447	1515	-	-	-	-	-	-
VSDDF17	1/3	1750	-	-	-	-	-	-	-	-	872	2963	828	2807	741	2512
VSDDF17	1/2	1750	1085	3678	1033	3502	978	3315	923	3129	874	2963	828	2807	741	2512
VSDDF11	1/3	1150	-	-	1216	2916	1129	2707	1042	2499	946	2269	802	1923	-	-
VSDDF11	1/2	1150	1300	3118	1216	2916	1129	2707	1042	2499	946	2269	802	1923	-	-
VSDDF17	1 1/2	1750	2048	4911	1994	4782	1940	4652	1886	4523	1830	4388	1772	4249	1657	3974
VSDDF10L11	1	1150	2127	3648	2036	3492	1945	3336	1855	3182	1766	3029	1681	2883	1484	2545

MODEL NO.	MOTOR HP	RPM	1" SP		1.25" SP		1.5" SP		1.75" SP	
			CFM	OV	CFM	OV	CFM	OV	CFM	OV
VSDDF17	1	1750	-	-	1543	3700	1408	3376	1205	2890
VSDDF17	1 1/2	1750	1657	3974	1543	3700	1408	3376	1205	2890

Model VSDDF is not licensed to bear the AMCA Seal

VSBCJ9 Belt Driven SWSI Junior Ventilating Set

Wheel Dia. - 10.500 Tip Speed (FPM): 2.75 x RPM Outlet Area - 0.653 ft²

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

VSBCJ10 Belt Driven SWSI Junior Ventilating Set

Wheel Dia. - 10.500 Tip Speed (FPM): 2.75 x RPM Outlet Area - 0.653 ft²

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

Performance is for installation Type B & D: Free or ducted inlet, ducted outlet.

Power rating (bhp) does not include belt drive losses.

Performance ratings do not include the effects of appurtenances in the airstream.

Performance Data

VSFCJ7 Belt Driven Junior Ventilating Set

Wheel Dia. - 7.688 Tip Speed (FPM): 2.012 x RPM Outlet Area - 0.325 ft²

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

VSFCJ9 Belt Driven Junior Ventilating Set

Wheel Dia. - 9.188 Tip Speed (FPM): 2.405 x RPM Outlet Area - 0.451 ft²

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

VSFCJ10 Belt Driven Junior Ventilating Set

Wheel Dia. - 10.625 Tip Speed (FPM): 2.782 x RPM Outlet Area - 0.594 ft²

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

Typical Specification

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

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

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

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

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

All wheels shall be statically and dynamically balanced.

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

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

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

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

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

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

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

Limited Warranty

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

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

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

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

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

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

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

AMERICAN COOLAIR CORPORATION; ILG INDUSTRIES

REPRESENTED BY:

Form No. 740-15-1 (November, 2002)