





































# Performance Data

## VSAC16

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

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

MAXIMUM RPM: Class I - 2673    Class II - 3487

## VSAC18

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

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 ft<sup>2</sup>    Wheel Dia. - 20.00 Inches    Tip Speed - 5.24 x RPM    Max. BHP = 0.68 (RPM/1000)<sup>3</sup>

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	3.46	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	3.95	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 ft<sup>2</sup>    Wheel Dia. - 22.25 Inches    Tip Speed - 5.84 x RPM    Max. BHP = 1.16 (RPM/1000)<sup>3</sup>

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																
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						
5700	2000	1018	1.09	1070	1.32	1164	1.77	1252	2.25	1335	2.74	1490	3.78	1633	4.86	1767	5.98	1897	7.16	2027	8.43		
6270	2200	1109	1.39	1158	1.65	1246	2.15	1327	2.66	1406	3.20	1552	4.30	1688	5.47	1816	6.66	1938	7.90	2056	9.18	2174	10.55
6840	2400	1202	1.76	1246	2.03	1329	2.58	1406	3.13	1479	3.70	1618	4.89	1748	6.13	1870	7.40	1987	8.72	2098	10.05	2207	11.44
7410	2600	1294	2.18	1336	2.48	1414	3.08	1487	3.67	1556	4.28	1688	5.54	1812	6.85	1928	8.20	2040	9.59	2148	11.03	2251	12.46
7980	2800	1388	2.67	1427	2.99	1501	3.64	1570	4.28	1635	4.92	1760	6.26	1878	7.64	1991	9.08	2098	10.54	2201	12.04	2302	13.59
8550	3000	1481	3.23	1518	3.58	1588	4.27	1654	4.96	1716	5.65	1835	7.05	1948	8.51	2056	10.02	2160	11.58	2259	13.15	2355	14.76
9120	3200	1575	3.87	1610	4.24	1676	4.98	1739	5.72	1799	6.45	1912	7.93	2020	9.46	2124	11.05	2224	12.67	2320	14.33		
9690	3400	1669	4.59	1702	4.98	1765	5.77	1825	6.55	1882	7.33	1991	8.90	2094	10.50	2194	12.16	2291	13.87				
10260	3600	1764	5.40	1795	5.82	1855	6.65	1912	7.48	1967	8.30	2071	9.95	2171	11.64	2267	13.37	2360	15.15				
10830	3800	1858	6.29	1888	6.74	1945	7.62	2000	8.49	2053	9.37	2153	11.10	2249	12.87	2341	14.67						

MAXIMUM RPM: Class I - 1881    Class II - 2381

## VSAC24

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

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 ft<sup>2</sup>    Wheel Dia. - 27.00 Inches    Tip Speed - 7.07 x RPM    Max. BHP = 2.80 (RPM/1000)<sup>3</sup>

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 ft<sup>2</sup>    Wheel Dia. - 30.00 Inches    Tip Speed - 7.85 x RPM    Max. BHP = 4.74 (RPM/1000)<sup>3</sup>

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 ft<sup>2</sup>    Wheel Dia. - 33.00 Inches    Tip Speed - 8.64 x RPM    Max. BHP = 7.64 (RPM/1000)<sup>3</sup>

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 ft<sup>2</sup>    Wheel Dia. - 36.50 Inches    Tip Speed - 9.56 x RPM    Max. BHP = 14.50 (RPM/1000)<sup>3</sup>

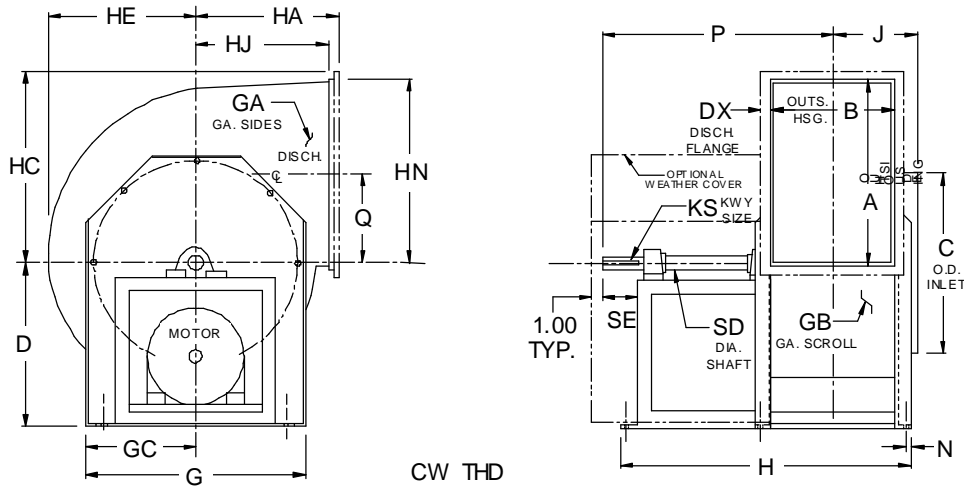
CFM	OV	0.25"		0.5"		1"		1.5"		2"		3"		4"		5"		6"		7"		8"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
6128	800	292	0.36	353	0.62	460	1.21																
7660	1000	335	0.53	388	0.84	481	1.51	565	2.26														
9192	1200	383	0.78	427	1.12	510	1.88	586	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

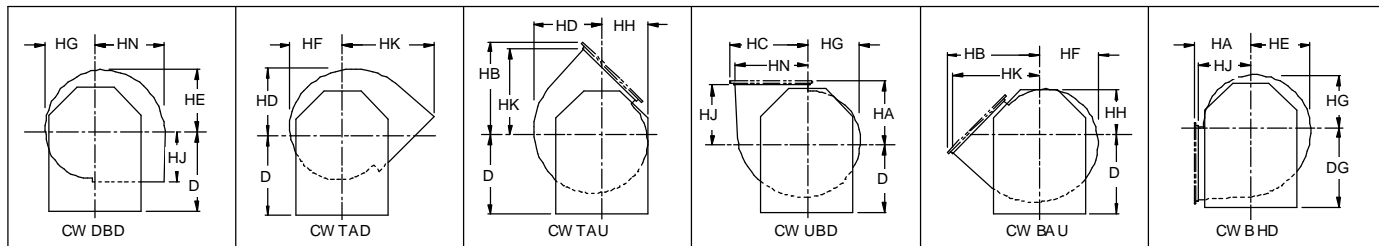
Performance is for installation Type B & D: Free or ducted inlet, ducted outlet.  
 Power rating (bhp) does not include belt drive losses.  
 Performance ratings do not include the effects of appurtenances in the airstream.

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

# Dimensional Data



CW THD



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

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

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

# Direct Drive Junior Ventilating Sets

## Type VSDDF

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



# Belt Driven Junior Ventilating Sets

## Type VSBCJ, VSFCJ

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

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

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

Accessories include:

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



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

For sound performance see Eng. Bulletin 2002-10.



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



## VSDDF Direct Drive Ventilating Set

MODEL NO.	MOTOR HP	RPM	0.125" SP		0.25" SP		0.375" SP		0.50" SP		0.625" SP		0.75" SP		1" SP	
			CFM	OV	CFM	OV	CFM	OV	CFM	OV	CFM	OV	CFM	OV	CFM	OV
VSDD F6F11	1/6	1150	324	1466	254	1149	-	-	-	-	-	-	-	-	-	-
VSDD F6F17	1/6	1750	545	2466	506	2290	464	2100	421	1905	362	1638	292	1321	-	-
VSDD F7F11	1/6	1150	668	2264	586	1986	516	1749	447	1515	-	-	-	-	-	-
VSDD F7H17	1/3	1750	-	-	-	-	-	-	-	-	872	2963	828	2807	741	2512
VSDD FJ17	1/2	1750	1085	3678	1033	3502	978	3315	923	3129	874	2963	828	2807	741	2512
VSDD F9H11	1/3	1150	-	-	1216	2916	1129	2707	1042	2499	946	2269	802	1923	-	-
VSDD F9J11	1/2	1150	1300	3118	1216	2916	1129	2707	1042	2499	946	2269	802	1923	-	-
VSDD F9M17	1 1/2	1750	2048	4911	1994	4782	1940	4652	1886	4523	1830	4388	1772	4249	1657	3974
VSDD F10L11	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
VSDD F9L17	1	1750	-	-	1543	3700	1408	3376	1205	2890
VSDD F9M17	1 1/2	1750	1657	3974	1543	3700	1408	3376	1205	2890

Model VSDDF is not licensed to bear the AMCA Seal

## VSBCJ9 Belt Driven SWSI Junior Ventilating Set

Wheel Dia. - 10.500 Tip Speed (FPM): 2.75 x RPM Outlet Area - 0.653 ft<sup>2</sup>

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

## VSBCJ10 Belt Driven SWSI Junior Ventilating Set

Wheel Dia. - 10.500 Tip Speed (FPM): 2.75 x RPM Outlet Area - 0.653ft<sup>2</sup>

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 ft<sup>2</sup>

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 ft<sup>2</sup>

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 ft<sup>2</sup>

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)