

# Series 8000 Centrifoil Fans

**Design 8091 • Class I & II**  
**Design 8093 • Class I & II**



# PERFORMANCE CHARACTERISTICS

Available in Sizes 912 to 6000  
Capacities from 100 to 92,000 CFM  
Static Pressures:  
    Class I to 6-1/2 in WG  
    Class II to 11 in WG  
Maximum operating temperature:  
    150°F

## EXAMPLE SELECTION

Air Density Correction Factor

Air Temp °F	Elevation (feet) above Sea Level						
	0	500	1000	2000	3000	4000	5000
0	0.87	0.88	0.90	0.93	0.97	1.00	1.04
70	1.00	1.02	1.04	1.08	1.12	1.16	1.20
100	1.06	1.08	1.10	1.14	1.18	1.22	1.27
150	1.15	1.17	1.20	1.24	1.29	1.33	1.39

## EXAMPLE SELECTION

Select a fan for 11,000 CFM at 5" WG static pressure (SP),  
100°F, 1000 ft ASL

The SP must be corrected to Standard Conditions as in  
the performance tables. From the table above the density  
correction factor is 1.10. The selection SP is  $5 \times 1.10 = 5.5$ " WG

For 11,000 CFM at 5.5" WG an efficient selection is a Size 3300,  
Design 8091 at 1288 RPM and 13.67 BHP  
(See Page 15)

Correcting the BHP to operating conditions using the Density  
Correction Factor  $13.67 \times 1.10 = 12.43$

To determine the Class of construction, note whether the  
selection is in the shaded or non-shaded area. Being in the  
non-shaded area, the selection is a Class I with a speed limit  
of 1402 RPM as noted at the top of the performance table

The selection is a Size 3300, Design 8091 operating at 1288  
RPM and 12.43 BHP at 100°F and 1000 ft ASL

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## STANDARD FEATURES

<b>WHEEL</b>	<ul style="list-style-type: none"><li>•D8093 Single Camber Sizes 912 to 1225</li><li>•D8091 Airfoil Sizes 1350 to 6000</li><li>•High efficiency, stable operation, low noise</li></ul>
<b>SHAFT</b>	<ul style="list-style-type: none"><li>•TG&amp;P or fully machined to close dimensional tolerances for vibration free operation.</li></ul>
<b>BEARINGS</b>	<ul style="list-style-type: none"><li>•Heavy duty precision ball or roller bearings sized for generous B-10 life for the class of fan.</li></ul>
<b>HOUSINGS</b>	<ul style="list-style-type: none"><li>•Heavy gauge all welded steel for maximum rigidity with enclosed belt and bearing tunnels.</li></ul>

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## OPTIONAL ACCESSORIES

- Horizontal Mounting Feet
- Variable Inlet Vanes
- Vertical Mounting Brackets
- Inlet Screen
- Shaft Seal
- Punched Flanged Inlet
- Quick Clamp Access Door
- Inlet Companion Flange
- Housing Drain
- Outlet Companion Flange
- Arrangement 9 OSHA Belt Guard
- Spark Resistant Construction  
AMCA Type B & C
- Motor & Drive Cover

Size

**912 SISW****DESIGN 8093 CENTRIFOIL FANS**Tip Speed =  $2.39 \times RPM$  [ft/min]Max. S.P. =  $0.28 \times (RPM/1000)^2$  "W.G.Max. Power =  $0.013 \times (RPM/1000)^3$  BHP

Max. Belt Drive Speed = 3600 RPM

Outlet Area = 0.92 sq.ft.

Wheel Diameter = 9.12 in.

Volume O. Vel	STATIC PRESSURE ["W.G.]																
	1/8"SP		1/4"SP		3/8"SP		1/2"SP		5/8"SP		3/4"SP		7/8"SP		1"SP		1-1/8"SP
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
100	108	719	0.00	971 0.01		1013 0.01		1217 0.02		1394 0.03		1556 0.05		1668 0.06		1809 0.07	
120	130	757	0.01	1092 0.02		1259 0.03		1394 0.03		1437 0.04		1600 0.05		1706 0.06		1848 0.08	
140	152	801	0.01	1052 0.02		1285 0.03		1430 0.04		1556 0.05		1677 0.06		1790 0.07		1892 0.09	
160	174	850	0.01	1092 0.02		1259 0.03		1394 0.03		1437 0.04		1600 0.05		1706 0.06		1848 0.08	
180	195	899	0.01	1092 0.02		1259 0.03		1394 0.03		1437 0.04		1600 0.05		1706 0.06		1848 0.08	
200	217	951	0.01	1138 0.02		1296 0.03		1437 0.04		1556 0.05		1668 0.06		1809 0.07		1942 0.09	
220	239	1009	0.01	1187 0.02		1336 0.03		1477 0.04		1600 0.05		1706 0.06		1848 0.08		1983 0.10	
240	260	1072	0.01	1236 0.02		1382 0.03		1514 0.05		1640 0.06		1750 0.07		1848 0.08		1983 0.10	
260	282	1138	0.02	1285 0.03		1430 0.04		1556 0.05		1677 0.06		1790 0.07		1892 0.09		2070 0.11	
300	325	1275	0.02	1394 0.03		1528 0.05		1651 0.06		1761 0.07		1866 0.09		1970 0.10		2067 0.11	
340	369	1415	0.03	1518 0.04		1630 0.05		1749 0.07		1857 0.08		1956 0.10		2049 0.11		2143 0.13	
380	412	1556	0.04	1651 0.05		1745 0.07		1849 0.08		1955 0.10		2053 0.11		2142 0.13		2228 0.15	
420	456	1699	0.06	1788 0.07		1871 0.08		1959 0.09		2055 0.11		2151 0.13		2240 0.15		2324 0.16	
460	499	1843	0.07	1928 0.08		2004 0.10		2080 0.11		2163 0.13		2250 0.14		2339 0.16		2423 0.18	
500	542	1988	0.09	2068 0.10		2140 0.12		2209 0.13		2281 0.15		2358 0.16		2439 0.18		2520 0.20	
540	586	2134	0.11	2210 0.12		2279 0.14		2344 0.15		2408 0.17		2475 0.19		2547 0.21		2622 0.23	
580	629	2280	0.13	2353 0.15		2419 0.17		2480 0.18		2540 0.20		2600 0.21		2663 0.23		2730 0.25	
620	678	2426	0.16	2496 0.18		2560 0.19		2620 0.21		2676 0.23		2731 0.25		2788 0.26		2847 0.28	
660	715	2574	0.19	2640 0.21		2702 0.23		2759 0.25		2813 0.26		2866 0.28		2918 0.30		2971 0.32	
700	759	2722	0.22	2785 0.24		2844 0.26		2900 0.28		2953 0.30		3002 0.32		3052 0.34		3101 0.36	
740	803	2870	0.26	2931 0.28		2988 0.30		3042 0.32		3092 0.35		3141 0.37		3188 0.39		3234 0.41	
780	846	3019	0.30	3077 0.32		3131 0.35		3183 0.37		3233 0.39		3280 0.41		3325 0.44		3370 0.45	
820	890	3168	0.34	3223 0.37		3276 0.39		3326 0.42		3375 0.44		3420 0.47		3465 0.49		3507 0.51	
860	933	3317	0.39	3370 0.42		3421 0.45		3470 0.47		3516 0.50		3561 0.52		3611 0.54		3650 0.53	
900	976	3466	0.45	3517 0.48		3566 0.50		3611 0.54		3650 0.56		3701 0.58		3746 0.60		3785 0.62	

Performance ratings shown are for fan without ducts.

Power ratings shown do not include belt drive loss.

Tip Speed = $3.21 \times RPM$  [ft/min]

Max. S.P. = $0.50 \times (RPM/1000)^2$  "W.G.

Max. Power = $0.051 \times (RPM/1000)^3$  BHP

Max. Belt Drive Speed = 3600 RPM

Outlet Area = 1.21 sq.ft.

Wheel Diameter = 12.25 in.

Size

**1225** SISW

### DESIGN 8093 CENTRIFOIL FANS

Volume O. Vel	STATIC PRESSURE ["W.G.]																
	1/4"SP		1/2"SP		3/4"SP		1"SP		1-1/4"SP		1-1/2"SP		1-3/4"SP		2"SP		2-1/4"SP
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
400	331	890	0.04	1105	0.07	1275	0.10	1463	0.15	1632	0.21	1790	0.28	1898	0.33	2038	0.41
450	373	941	0.04	1145	0.08	1320	0.11	1508	0.17	1677	0.23	1834	0.30	1938	0.36		
500	413	995	0.05	1192	0.09	1361	0.13	1550	0.19	1721	0.25	1898	0.33				
550	455	1053	0.06	1243	0.10	1401	0.14	1589	0.20	1721	0.25	1834	0.30	1938	0.36	2038	0.41
600	496	1117	0.07	1294	0.11	1448	0.15										
650	537	1185	0.08	1345	0.12	1498	0.17	1631	0.22	1760	0.28	1879	0.33	1983	0.38	2079	0.44
700	579	1255	0.09	1399	0.13	1549	0.19	1678	0.24	1800	0.30	1918	0.36	2028	0.41	2124	0.47
750	620	1326	0.11	1456	0.15	1600	0.21	1729	0.26	1845	0.32	1958	0.38	2067	0.44	2169	0.51
800	661	1398	0.12	1517	0.17	1652	0.22	1780	0.29	1894	0.35	2001	0.41	2106	0.47	2208	0.54
850	702	1471	0.14	1582	0.19	1705	0.24	1831	0.31	1944	0.37	2048	0.44	2149	0.51	2247	0.58
900	744	1543	0.16	1649	0.21	1761	0.27	1882	0.33	1996	0.40	2098	0.47	2195	0.54	2289	0.61
950	785	1617	0.19	1718	0.24	1821	0.29	1935	0.36	2047	0.43	2149	0.50	2244	0.58	2335	0.65
1000	826	1690	0.21	1789	0.27	1883	0.32	1989	0.39	2098	0.45	2200	0.54	2295	0.61	2383	0.69
1100	909	1838	0.27	1932	0.33	2016	0.39	2106	0.45	2204	0.53	2303	0.61	2397	0.69	2484	0.78
1200	992	1986	0.34	2077	0.41	2156	0.47	2234	0.53	2318	0.61	2408	0.69	2499	0.78	2587	0.87
1300	1074	2136	0.42	2223	0.49	2298	0.56	2369	0.63	2443	0.70	2522	0.78	2605	0.87	2689	0.97
1400	1157	2286	0.51	2369	0.59	2443	0.66	2509	0.74	2575	0.81	2645	0.89	2719	0.98	2796	1.08
1500	1240	2437	0.62	2516	0.70	2587	0.78	2652	0.86	2714	0.94	2776	1.02	2841	1.11	2910	1.20
1600	1322	2588	0.74	2665	0.83	2734	0.91	2796	1.00	2855	1.08	2912	1.16	2971	1.25	3032	1.35
1700	1405	2740	0.87	2813	0.97	2880	1.06	2941	1.15	2998	1.24	3052	1.33	3107	1.42	3162	1.51
1800	1488	2892	1.02	2962	1.12	3027	1.22	3087	1.32	3143	1.41	3195	1.51	3246	1.60	3297	1.70
1900	1570	3045	1.19	3113	1.30	3175	1.40	3234	1.51	3288	1.61	3338	1.70	3388	1.80	3436	1.90
2000	1653	3199	1.37	3264	1.49	3324	1.60	3380	1.71	3433	1.82	3484	1.92	3531	2.02	3577	2.13
2100	1736	3352	1.58	3414	1.70	3472	1.82	3527	1.93	3580	2.05						
2200	1818	3506	1.80	3565	1.93												

Volume O. Vel	STATIC PRESSURE ["W.G.]																
	2-1/2"SP		2-3/4"SP		3"SP		3-1/4"SP		3-1/2"SP		4"SP		4-1/2"SP		5"SP		5-1/2"SP
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
750	621	2346	0.63	2427	0.70	2506	0.76	2586	0.83	2700	0.95	2882	1.16	3056	1.38	3221	1.62
800	650	2391	0.67	2471	0.74	2549	0.81	2625	0.88	2740	1.01	2922	1.22	3095	1.45		
850	704	2433	0.72	2516	0.79	2594	0.86	2669	0.93	2759	1.04	2831	1.12	2967	1.28		
900	746	2473	0.76	2559	0.84	2639	0.91	2715	0.99	2785	1.06	2922	1.22	3056	1.38		
950	787	2512	0.80	2598	0.88	2680	0.95	2759	1.04	2831	1.12	2967	1.28	3095	1.45		
1000	829	2553	0.85	2637	0.93	2720	1.01	2799	1.10	2874	1.18	3012	1.35	3139	1.52	3261	1.69
1100	911	2646	0.95	2724	1.03	2801	1.12	2878	1.21	2953	1.30	3097	1.49	3228	1.67	3349	1.85
1200	994	2746	1.05	2821	1.15	2893	1.24	2964	1.33	3035	1.43	3175	1.62	3310	1.82	3437	2.02
1300	1077	2849	1.17	2923	1.27	2993	1.37	3061	1.47	3128	1.57	3259	1.77	3390	1.98	3516	2.20
1400	1160	2952	1.29	3026	1.39	3095	1.50	3163	1.61	3228	1.71	3353	1.93	3475	2.15	3596	2.37
1500	1243	3055	1.41	3127	1.53	3198	1.64	3266	1.76	3331	1.87	3454	2.10	3571	2.33		
1600	1326	3164	1.56	3232	1.67	3301	1.79	3369	1.91	3433	2.03	3557	2.28				
1700	1409	3280	1.72	3343	1.83	3408	1.95	3472	2.08	3535	2.20						
1800	1492	3404	1.90	3461	2.02	3520	2.14	3580	2.26								
1900	1574	3534	2.11	3585	2.22												

Performance ratings shown are for fan without ducts.

Power ratings shown do not include belt drive loss.

Size

# 1350 SISW

## DESIGN 8091 CENTRIFOIL FANS

Tip Speed = $3.53 \times RPM$  [ft/min]Max. S.P. = $0.61 \times (RPM/1000)^2$  "W.G.Max. Power = $0.081 \times (RPM/1000)^3$  BHP

Max. Belt Drive Speed = 3600 RPM

Outlet Area = 1.82 sq.ft.

Wheel Diameter = 13.50 in.

Volume O. Vel	STATIC PRESSURE ["W.G.]																
	1/4"SP		1/2"SP		3/4"SP		1"SP		1-1/4"SP		1-1/2"SP		1-3/4"SP		2"SP		2-1/2"SP
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
500	275	816	0.04	1009	0.08	1166	0.12	1361	0.19	1475	0.24	1644	0.34	1739	0.40	1891	0.52
600	330	894	0.06	1074	0.10	1228	0.15	1423	0.23	1541	0.28	1708	0.39	1805	0.45	1958	0.58
700	385	983	0.07	1149	0.12	1290	0.17	1364	0.20	1484	0.26	1600	0.33	1708	0.39	1891	0.52
800	440	1083	0.09	1225	0.14	1364	0.20	1557	0.30	1663	0.37	1767	0.44	1867	0.51	2057	0.66
900	495	1188	0.12	1307	0.17	1440	0.24									2118	0.73
1000	550	1295	0.15	1399	0.21	1516	0.27	1633	0.34	1735	0.42	1832	0.49	1925	0.57	2017	0.65
1100	604	1404	0.19	1499	0.25	1599	0.31	1708	0.39	1811	0.47	1904	0.55	1992	0.64	2078	0.72
1200	660	1513	0.24	1603	0.30	1690	0.36	1787	0.44	1887	0.53	1980	0.62	2066	0.71	2147	0.80
1300	714	1623	0.29	1709	0.36	1788	0.43	1872	0.50	1964	0.59	2056	0.68	2141	0.78	2221	0.88
1400	769	1734	0.36	1816	0.43	1890	0.50	1965	0.57	2047	0.66	2132	0.76	2218	0.86	2297	0.96
1500	824	1845	0.43	1924	0.50	1995	0.58	2063	0.65	2135	0.74	2213	0.84	2294	0.94	2373	1.05
1600	879	1957	0.51	2034	0.59	2101	0.67	2165	0.75	2230	0.83	2300	0.93	2374	1.03	2449	1.15
1700	934	2070	0.60	2143	0.68	2209	0.77	2269	0.85	2329	0.94	2392	1.03	2459	1.14	2529	1.25
1800	989	2182	0.69	2253	0.79	2316	0.88	2375	0.97	2432	1.06	2489	1.15	2549	1.26	2613	1.37
1900	1044	2295	0.81	2364	0.91	2425	1.00	2482	1.10	2536	1.19	2590	1.29	2645	1.39	2703	1.50
2000	1099	2409	0.93	2474	1.03	2535	1.14	2590	1.24	2642	1.34	2693	1.43	2744	1.54	2797	1.65
2100	1154	2523	1.06	2585	1.17	2644	1.28	2698	1.39	2749	1.49	2798	1.60	2846	1.70	2895	1.81
2200	1209	2637	1.21	2697	1.33	2754	1.44	2807	1.55	2857	1.66	2904	1.77	2950	1.88	2996	1.99
2300	1264	2751	1.37	2810	1.49	2865	1.62	2916	1.73	2965	1.85	3011	1.96	3056	2.08	3100	2.19
2400	1319	2866	1.55	2922	1.68	2975	1.80	3025	1.92	3073	2.05	3119	2.17	3162	2.28	3204	2.40
2500	1374	2980	1.74	3035	1.87	3086	2.00	3135	2.13	3183	2.26	3227	2.38	3269	2.51	3310	2.63
2600	1429	3095	1.95	3147	2.08	3198	2.22	3246	2.35	3292	2.49	3335	2.62	3378	2.75	3417	2.87
2700	1484	3210	2.17	3261	2.31	3310	2.45	3357	2.59	3401	2.73	3444	2.87	3485	3.00	3525	3.14
2800	1539	3325	2.41	3374	2.55	3422	2.70	3467	2.85	3511	2.99	3554	3.14	3593	3.28		
2900	1593	3440	2.66	3488	2.81	3535	2.97	3578	3.12								

Volume O. Vel	STATIC PRESSURE ["W.G.]																
	3"SP		3-1/2"SP		4"SP		4-1/2"SP		5"SP		5-1/2"SP		6"SP		6-1/2"SP		7"SP
CFM	FPM	RPM	BHP	RPM	BHP												
1000	549	2330	0.97	2464	1.14	2773	1.62	2946	1.95	3056	2.17	3217	2.54	3319	2.77		
1100	604	2396	1.07	2529	1.25	2653	1.43	2835	1.75	2904	2.04	3077	2.27	3182	2.49	3282	2.72
1200	659	2455	1.17	2596	1.36	2719	1.55	2857	1.86	2926	2.17	3097	2.44	3208	2.71	3308	2.98
1300	714	2514	1.27	2653	1.48	2784	1.69	2903	1.90	3012	2.11	3116	2.32	3217	2.54	3319	2.77
1400	769	2579	1.38	2712	1.60	2842	1.82	2965	2.04	3077	2.27	3182	2.49	3282	2.72	3378	2.96
1500	824	2651	1.50	2776	1.72	2901	1.96	3024	2.19	3140	2.43	3249	2.67	3350	2.91	3443	3.15
1600	879	2725	1.62	2848	1.86	2965	2.10	3082	2.35	3197	2.60	3308	2.86	3412	3.11	3509	3.36
1700	934	2801	1.75	2922	2.00	3036	2.25	3147	2.51	3256	2.77	3365	3.04	3470	3.31	3571	3.58
1800	989	2877	1.88	2998	2.15	3110	2.41	3217	2.68	3322	2.95	3425	3.23	3528	3.51		
1900	1044	2953	2.02	3074	2.30	3186	2.58	3291	2.86	3392	3.14	3492	3.43	3590	3.72		
2000	1099	3030	2.17	3150	2.46	3262	2.75	3366	3.05	3466	3.34	3563	3.64				
2100	1154	3111	2.33	3226	2.63	3337	2.93	3442	3.24	3541	3.55						
2200	1209	3195	2.50	3304	2.80	3413	3.12	3518	3.44								
2300	1263	3284	2.70	3386	2.99	3490	3.31	3594	3.65								
2400	1319	3377	2.91	3471	3.20	3570	3.52										

Performance ratings shown are for fan without ducts.

Power ratings shown do not include belt drive loss.

Tiap Speed = $3.93 \times RPM$  [ft/min]

Max. S.P. = $0.76 \times (RPM/1000)^2$  "W.G.

Max. Power = $0.137 \times (RPM/1000)^3$  BHP

Max. Belt Drive Speed = 3600 RPM

Outlet Area = 2.24 sq.ft.

Wheel Diameter = 15.00 in.

Size

**1500** SISW

### DESIGN 8091 CENTRIFOIL FANS

Volume O. Vel	STATIC PRESSURE ["W.G.]																
	1/2"SP		1"SP		1-1/2"SP		2"SP		2-1/2"SP		3"SP		3-1/2"SP		4"SP		4-1/2"SP
CFM	FPM	RPM	BHP	RPM	BHP												
800	357	999	0.13	1253	0.26	1449	0.39	1663	0.59	1857	0.82	2036	1.08	2203	1.38		
900	402	1054	0.16	1295	0.29	1496	0.44	1709	0.65	1901	0.89	2079	1.17				
1000	446	1110	0.18	1342	0.33	1543	0.49	1757	0.71	1950	0.97						
1100	492	1169	0.21	1395	0.37	1585	0.54	1801	0.78								
1200	536	1235	0.24	1450	0.41	1631	0.59										
1300	580	1306	0.28	1505	0.46	1683	0.65	1844	0.85	1995	1.06	2130	1.27	2248	1.48	2361	1.70
1400	625	1380	0.33	1561	0.50	1737	0.71	1890	0.92	2037	1.14	2175	1.36	2298	1.59	2408	1.82
1500	670	1457	0.38	1619	0.56	1792	0.77	1942	1.00	2081	1.23	2217	1.46	2344	1.70	2458	1.95
1600	714	1534	0.44	1682	0.62	1848	0.84	1996	1.08	2131	1.32	2260	1.57	2386	1.82	2504	2.08
1700	759	1612	0.51	1749	0.68	1903	0.91	2052	1.16	2183	1.42	2307	1.67	2428	1.94	2546	2.21
1800	804	1691	0.58	1819	0.76	1961	0.99	2107	1.25	2238	1.52	2358	1.79	2474	2.06	2588	2.34
1900	848	1770	0.66	1892	0.85	2022	1.07	2162	1.34	2293	1.62	2411	1.91	2524	2.19	2633	2.48
2000	893	1850	0.75	1967	0.95	2086	1.17	2218	1.44	2348	1.73	2466	2.03	2576	2.33	2681	2.63
2100	938	1929	0.84	2043	1.05	2154	1.28	2277	1.55	2404	1.85	2522	2.16	2631	2.47	2733	2.78
2200	982	2009	0.95	2120	1.17	2224	1.40	2338	1.66	2459	1.97	2577	2.29	2686	2.62	2786	2.94
2300	1027	2090	1.06	2198	1.29	2297	1.53	2402	1.79	2517	2.10	2632	2.43	2741	2.77	2841	3.11
2400	1071	2171	1.19	2277	1.43	2372	1.67	2469	1.93	2576	2.23	2688	2.57	2796	2.92	2897	3.28
2500	1116	2252	1.32	2355	1.57	2447	1.82	2539	2.08	2639	2.38	2745	2.72	2851	3.08	2953	3.46
2600	1161	2333	1.46	2434	1.73	2524	1.98	2611	2.25	2704	2.55	2804	2.88	2907	3.25	3008	3.63
2800	1250	2496	1.78	2594	2.07	2679	2.34	2760	2.62	2842	2.92	2930	3.25	3023	3.62	3119	4.01
3000	1339	2660	2.14	2753	2.45	2836	2.75	2913	3.05	2987	3.35	3065	3.68	3148	4.04	3235	4.43
3200	1429	2825	2.55	2913	2.88	2994	3.21	3067	3.52	3138	3.84	3208	4.17	3282	4.53	3360	4.91
3400	1518	2990	3.01	3075	3.37	3153	3.72	3225	4.06	3292	4.39	3357	4.73	3424	5.09	3494	5.47
3600	1607	3155	3.53	3237	3.91	3312	4.28	3382	4.64	3447	5.00	3509	5.35	3572	5.72		
3800	1696	3322	4.10	3399	4.50	3472	4.90	3540	5.29								

Volume O. Vel	STATIC PRESSURE ["W.G.]																
	5"SP		5-1/2"SP		6"SP		6-1/2"SP		7"SP		7-1/2"SP		8"SP		8-1/2"SP		9"SP
CFM	FPM	RPM	BHP	RPM	BHP												
1500	670	2661	2.44	2758	2.70			2985	3.42								
1600	714	2708	2.59	2802	2.86	2893	3.13	3027	3.60	3113	3.89						
1700	759	2757	2.75	2850	3.03	2939	3.31										
1800	804	2803	2.92	2898	3.20	2988	3.49	3075	3.79	3157	4.09	3238	4.39	3321	4.72		
1900	848	2845	3.08	2944	3.39	3036	3.69	3123	4.00	3206	4.30	3284	4.61	3364	4.94	3439	5.26
2000	893	2887	3.25	2987	3.57	3081	3.89	3171	4.21	3255	4.53	3333	4.85	3411	5.18	3485	5.51
2100	938	2931	3.42	3029	3.75	3124	4.09	3215	4.42	3303	4.76	3382	5.09	3459	5.43	3533	5.77
2200	982	2979	3.60	3072	3.94	3166	4.29	3257	4.64	3345	4.99	3428	5.34	3506	5.69	3584	6.05
2300	1027	3029	3.79	3120	4.14	3210	4.50	3299	4.96	3387	5.22	3472	5.59	3551	5.95		
2400	1071	3083	3.99	3171	4.35	3257	4.71	3343	5.08	3428	5.46	3514	5.85	3594	6.22		
2500	1116	3137	4.19	3224	4.57	3308	4.94	3390	5.32	3473	5.70						
2600	1161	3191	4.40	3277	4.79	3360	5.17	3441	5.56	3520	5.95	3555	6.10				
2800	1250	3303	4.84	3388	5.25	3468	5.66	3546	6.07								
3000	1339	3413	5.29	3498	5.73	3579	6.17										
3200	1429	3525	5.78														

Performance ratings shown are for fan without ducts.

Power ratings shown do not include belt drive loss.

Size

# 1650 SISW

## DESIGN 8091 CENTRIFOIL FANS

Tip Speed =  $4.32 \times RPM$  [ft/min]Max. S.P. =  $0.92 \times (RPM/1000)^2$  "W.G.Max. Power =  $0.221 \times (RPM/1000)^3$  BHP

Class I Max. Speed = 3446 RPM

Max. Belt Drive Speed = 3600 RPM

Outlet Area = 2.71 sq.ft.

Wheel Diameter = 16.50 in.

Volume O. Vel	STATIC PRESSURE ["W.G.]																
	1/2"SP		1"SP		1-1/2"SP		2"SP		2-1/2"SP		3"SP		3-1/2"SP		4"SP		4-1/2"SP
CFM	FPM	RPM	BHP	RPM	BHP												
600	221	775	0.10														
800	295	843	0.13	1079	0.26												
1000	369	921	0.17	1150	0.33	1328	0.49										
1200	443	1005	0.22	1216	0.39	1399	0.58	1550	0.78	1685	0.99						
1400	517	1097	0.27	1296	0.47	1464	0.69	1620	0.91	1753	1.13	1873	1.37				
1600	590	1202	0.35	1380	0.56	1540	0.80	1685	1.04	1823	1.30	1945	1.56	2054	1.82	2156	2.09
1800	664	1316	0.45	1465	0.66	1623	0.93	1759	1.19	1887	1.47	2011	1.75	2126	2.05	2228	2.33
2000	738	1432	0.57	1561	0.79	1706	1.06	1841	1.36	1962	1.66	2077	1.96	2190	2.28	2297	2.60
2200	812	1550	0.72	1666	0.94	1792	1.21	1924	1.53	2043	1.86	2152	2.19	2257	2.52	2360	2.86
2400	886	1670	0.89	1777	1.13	1886	1.40	2008	1.72	2127	2.08	2234	2.43	2334	2.79	2430	3.15
2600	959	1789	1.08	1892	1.34	1989	1.61	2096	1.94	2209	2.31	2317	2.69	2415	3.07	2508	3.46
2800	1033	1911	1.31	2008	1.59	2098	1.87	2192	2.19	2295	2.56	2400	2.96	2499	3.38	2590	3.79
3000	1107	2032	1.56	2127	1.87	2210	2.16	2295	2.48	2387	2.84	2484	3.25	2582	3.69	2674	4.14
3200	1181	2154	1.85	2245	2.18	2326	2.49	2403	2.82	2485	3.18	2574	3.58	2666	4.03	2757	4.50
3400	1255	2277	2.17	2365	2.52	2442	2.86	2516	3.20	2590	3.56	2669	3.96	2754	4.40	2840	4.88
3600	1328	2400	2.53	2484	2.90	2561	3.27	2630	3.62	2699	3.99	2771	4.38	2847	4.82	2928	5.30
3800	1402	2523	2.93	2605	3.33	2679	3.71	2746	4.09	2812	4.46	2877	4.86	2947	5.29	3020	5.77
4000	1476	2647	3.37	2726	3.79	2798	4.20	2864	4.60	2926	4.99	2988	5.40	3051	5.82	3118	6.29
4200	1550	2771	3.86	2847	4.30	2918	4.73	2982	5.15	3042	5.56	3101	5.98	3160	6.41	3221	6.87
4400	1624	2896	4.39	2969	4.85	3037	5.31	3100	5.75	3159	6.19	3216	6.52	3272	7.06	3328	7.52
4600	1698	3021	4.97	3092	5.46	3158	5.93	3219	6.40	3278	6.86	3332	7.31	3385	7.76	3439	8.23
4800	1771	3146	5.61	3215	6.11	3279	6.61	3340	7.11	3396	7.58	3449	8.05	3501	8.53	3551	9.00
5000	1845	3272	6.29	3338	6.82	3400	7.34	3459	7.85	3514	8.36	3568	8.85				
5200	1919	3398	7.03	3461	7.58	3521	8.12	3579	8.66								
5400	1993	3523	7.83	3585	8.40												

Volume O. Vel	STATIC PRESSURE ["W.G.]																
	5"SP		5-1/2"SP		6"SP		6-1/2"SP		7"SP		8"SP		9"SP		10"SP		11"SP
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1800	664	2413	2.93	2503	3.25												
2000	738	2485	3.24	2571	3.57	2653	3.90	2733	4.24	2813	4.60						
2200	812	2555	3.56	2643	3.92	2725	4.27	2804	4.63	2877	4.99	3025	5.75				
2400	886	2619	3.90	2709	4.28	2795	4.66	2875	5.05	2952	5.44	3093	6.21	3228	7.02	3362	7.87
2600	959	2686	4.25	2773	4.66	2859	5.07	2942	5.48	3020	5.89	3166	6.73	3300	7.57	3426	8.43
2800	1033	2760	4.62	2842	5.05	2924	5.48	3004	5.92	3085	6.37	3234	7.25	3372	8.14	3498	9.04
3000	1107	2841	5.02	2920	5.47	2998	5.92	3073	6.38	3148	6.84	3299	7.79	3440	8.74	3570	9.69
3200	1181	2925	5.45	3002	5.92	3076	6.39	3149	6.85	3221	7.35	3362	8.33	3503	9.34		
3400	1257	3008	5.88	3085	6.38	3158	6.88	3229	7.38	3299	7.89	3434	8.91	3567	9.95		
3600	1328	3090	6.33	3167	6.86	3241	7.39	3312	7.92	3381	8.46	3511	9.52				
3800	1402	3174	6.81	3250	7.36	3324	7.92	3395	8.49	3464	9.05	3592	10.16				
4000	1476	3261	7.33	3334	7.89	3407	8.47	3478	9.06	3547	9.67						
4200	1550	3353	7.91	3422	8.47	3491	9.06	3561	9.67								
4400	1624	3449	8.54	3514	9.10	3579	9.69										
4600	1697	3550	9.24														

Performance ratings shown are for fan without ducts.

Power ratings shown do not include belt drive loss.

Tip Speed = $4.78 \times RPM$  [ft/min]

Max. S.P. = $1.12 \times (RPM/1000)^2$  "W.G.

Max. Power = $0.298 \times (RPM/1000)^3$  BHP

Class I Max. Speed = 3081 RPM

Size

Max. Belt Drive Speed = 3600 RPM

Outlet Area = 3.27 sq.ft.

Wheel Diameter = 18.25 in.

**1825** SISW

## DESIGN 8091 CENTRIFOIL FANS

Volume O. Vel	STATIC PRESSURE ["W.G.]																
	1/2"SP		1"SP		1-1/2"SP		2"SP		2-1/2"SP		3"SP		3-1/2"SP		4"SP		4-1/2"SP
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
800	245	719	0.11														
1000	306	768	0.13	982	0.26												
1200	367	826	0.16	1034	0.32	1195	0.48										
1400	428	887	0.20	1083	0.37	1248	0.55	1384	0.74								
1600	489	951	0.24	1139	0.43	1297	0.63	1437	0.84	1556	1.06	1668	1.28				
1800	550	1024	0.30	1199	0.50	1348	0.72	1486	0.95	1609	1.18	1716	1.42	1817	1.67		
2000	612	1105	0.37	1260	0.57	1406	0.82	1536	1.06	1658	1.32	1769	1.58	1868	1.84	1961	2.11
2200	673	1189	0.45	1324	0.66	1467	0.92	1591	1.19	1707	1.46	1818	1.74	1922	2.03	2014	2.31
2400	734	1275	0.55	1393	0.75	1528	1.03	1651	1.32	1762	1.61	1867	1.91	1969	2.22	2065	2.52
2600	795	1362	0.66	1469	0.87	1590	1.14	1712	1.46	1820	1.77	1921	2.09	2018	2.41	2114	2.75
2800	856	1450	0.79	1550	1.01	1657	1.28	1772	1.60	1881	1.94	1979	2.28	2072	2.62	2162	2.97
3000	917	1539	0.93	1634	1.17	1729	1.44	1835	1.76	1941	2.12	2040	2.48	2130	2.84	2217	3.21
3200	979	1627	1.09	1719	1.35	1805	1.62	1901	1.94	2003	2.30	2101	2.69	2190	3.07	2275	3.46
3400	1040	1717	1.28	1805	1.55	1886	1.83	1972	2.14	2066	2.51	2161	2.91	2251	3.32	2334	3.73
3600	1101	1806	1.48	1893	1.77	1969	2.06	2047	2.37	2133	2.73	2223	3.14	2312	3.57	2395	4.00
3800	1162	1896	1.70	1980	2.01	2054	2.32	2126	2.63	2204	2.99	2287	3.39	2373	3.83	2456	4.29
4000	1223	1987	1.95	2068	2.28	2140	2.60	2208	2.92	2279	3.27	2355	3.67	2436	4.11	2517	4.58
4400	1346	2169	2.51	2245	2.88	2314	3.24	2376	3.59	2438	3.95	2503	4.34	2571	4.77	2644	5.24
4800	1468	2351	3.18	2424	0.59	2489	3.99	2549	4.37	2605	4.75	2662	5.14	2721	5.57	2783	6.03
5200	1590	2535	3.96	2603	4.41	2667	4.85	2724	5.27	2777	5.68	2829	6.09	2881	6.52	2935	6.97
5600	1713	2719	4.87	2784	5.36	2844	5.83	2900	6.29	2951	6.74	3000	7.18	3048	7.62	3096	8.08
6000	1835	2905	5.92	2966	6.44	3024	6.96	3077	7.45	3126	7.93	3174	8.41	3219	8.89	3263	9.36
6400	1957	3090	7.11	3148	7.66	3203	8.21	3254	8.75	3304	9.28	3349	9.79	3392	10.29	3435	10.80
6800	2080	3275	8.45	3331	9.04	3383	9.62	3434	10.20	3481	10.77	3525	11.32	3568	11.87	3476	11.30
7200	2202	3452	9.95	3514	10.57	3565	11.20										

Volume O. Vel	STATIC PRESSURE ["W.G.]																
	5"SP		6"SP		7"SP		8"SP		9"SP		10"SP		11"SP		12"SP		13"SP
CFM	FPM	RPM	BHP														
2200	673	2182	2.91														
2400	734	2234	3.15	2387	3.81												
2600	795	2287	3.42	2439	4.10	2579	4.81	2715	5.56								
2800	856	2336	3.69	2492	4.41	2631	5.15	2761	5.91	2888	6.71						
3000	917	2384	3.96	2542	4.73	2684	5.51	2814	6.30	2936	7.11	3054	7.96				
3200	979	2435	4.26	2590	5.07	2734	5.88	2866	6.71	2987	7.55	3102	8.41	3213	9.30	3324	10.22
3400	1040	2490	4.56	2638	5.40	2783	6.27	2917	7.13	3040	8.01	3154	8.90	3263	9.80	3369	10.74
3600	1101	2548	4.87	2692	5.76	2831	6.66	2965	7.57	3091	8.49	3208	9.42	3316	10.35	3420	11.31
3800	1162	2608	5.20	2748	6.13	2883	7.07	3013	8.02	3139	8.98	3258	9.95	3396	10.90	3473	11.92
4000	1223	2669	5.55	2807	6.51	2938	7.49	3063	8.48	3187	9.48	3306	10.50	3419	11.52	3525	12.55
4400	1346	2791	6.26	2928	7.32	3055	8.39	3174	9.45	3290	10.53	3403	11.62	3515	12.73		
4800	1468	2915	7.06	3050	8.19	3176	9.34	3293	10.49	3404	11.65	3512	12.82				
5200	1590	3050	7.98	3173	9.12	3297	10.35	3415	11.60	3524	12.84						
5600	1713	3197	9.07	3306	10.20	3421	11.43	3535	12.75								
6000	1835	3354	10.35	3450	11.45	3553	12.68										

Performance ratings shown are for fan without ducts.

Power ratings shown do not include belt drive loss.

Size

# 2000 SISW

## DESIGN 8091 CENTRIFOIL FANS

Tip Speed =  $5.24 \times RPM$  [ft/min]Max. S.P. =  $1.35 \times (RPM/1000)^2$  "W.G.Max. Power =  $0.472 \times (RPM/1000)^3$  BHP

Class I Max. Speed = 2812 RPM

Max. Belt Drive Speed = 3600 RPM

Outlet Area = 3.93 sq.ft.

Wheel Diameter = 20.00 in.

Volume O. Vel	STATIC PRESSURE ["W.G.]																
	1/2"SP		1"SP		1-1/2"SP		2"SP		2-1/2"SP		3"SP		3-1/2"SP		4"SP		4-1/2"SP
CFM	FPM	RPM	BHP	RPM	BHP												
1000	254	664	0.13														
1200	305	701	0.16	896	0.32												
1400	356	744	0.19	936	0.37	1084	0.56										
1600	407	790	0.23	972	0.42	1122	0.63	1248	0.85								
1800	458	837	0.26	1013	0.48	1162	0.71	1287	0.95	1397	1.20						
2000	509	889	0.31	1057	0.55	1198	0.80	1327	1.05	1436	1.32	1535	1.59				
2400	611	1007	0.44	1149	0.69	1283	0.98	1401	1.28	1513	1.58	1614	1.89	1704	2.21	1789	2.54
2800	712	1136	0.61	1249	0.86	1375	1.19	1488	1.53	1590	1.87	1688	2.22	1782	2.58	1869	2.95
3200	814	1269	0.84	1364	1.10	1470	1.42	1580	1.80	1679	2.19	1770	2.58	1857	2.98	1942	3.38
2600	662	1403	1.12	1490	1.40	1576	1.72	1673	2.11	1771	2.54	1860	2.97	1943	3.41	2022	3.86
4000	1018	1538	1.45	1620	1.78	1695	2.10	1776	2.48	1865	2.92	1953	3.40	2035	3.88	2112	4.37
4400	1120	1674	1.86	1752	2.22	1821	2.57	1891	2.94	1966	3.38	2046	3.86	2127	4.38	2204	4.92
4800	1221	1812	2.33	1886	2.73	1951	3.12	2013	3.50	2078	3.93	2148	4.41	2222	4.93	2295	5.50
5200	1323	1950	2.89	2021	3.33	2083	3.75	2141	4.16	2199	4.59	2259	5.06	2324	5.58	2391	6.15
5600	1425	2088	3.53	2156	4.01	2216	4.46	2271	4.91	2325	5.36	2378	5.83	2435	6.33	2495	6.89
6000	1527	2227	4.26	2292	4.78	2351	5.28	2404	5.76	2454	6.23	2503	5.72	2553	7.22	2606	7.77
6400	1629	2367	5.10	2429	5.65	2485	6.19	2537	6.71	2585	7.21	2631	7.72	2678	8.24	2725	8.78
6800	1730	2508	6.04	2566	6.62	2620	7.20	2671	7.76	2718	8.31	2762	8.84	2805	9.38	2849	9.93
7200	1832	2648	7.09	2704	7.72	2757	8.34	2806	8.93	2851	9.51	2894	10.08	2936	10.65	2976	11.22
7600	1934	2789	8.27	2843	8.93	2893	9.58	2940	10.21	2985	10.84	3027	11.45	3067	12.04	3106	12.64
8000	2036	2930	9.57	2981	10.26	3030	10.94	3076	11.63	3121	12.30	3161	12.93	3200	13.58	3237	14.19
8400	2137	3072	11.00	3120	11.72	3167	12.45	3213	13.18	3255	13.87	3296	14.56	3333	15.23	3370	15.89
8800	2239	3213	12.57	3260	13.33	3306	14.10	3349	14.85	3390	15.59	3431	16.33	3467	17.03	3503	17.74
9200	2340	3355	14.28	3400	15.08	3444	15.90	3486	16.67	3527	17.47	3565	18.22				
9600	2443	3497	16.15	3540	16.99	3583	17.83										

Volume O. Vel	STATIC PRESSURE ["W.G.]																
	5"SP		6"SP		7"SP		8"SP		9"SP		10"SP		12"SP		14"SP		16"SP
CFM	FPM	RPM	BHP														
2800	712	2022	3.68	2163	4.46												
3200	814	2102	4.21	2241	5.04	2368	5.90	2491	6.81								
3600	916	2175	4.76	2319	5.68	2449	6.61	2567	7.56	2678	8.54	2786	9.55				
4000	1018	2254	5.35	2392	6.35	2524	7.36	2648	8.40	2759	9.43	2863	10.49	3059	12.68		
4400	1120	2343	5.98	2473	7.06	2597	8.15	2720	9.27	2835	10.39	2942	11.52	3137	13.83	3316	16.20
4800	1221	2435	6.65	2561	7.81	2680	8.99	2794	10.17	2907	11.38	3016	12.60	3216	15.05	3394	17.56
5200	1323	2527	7.37	2653	8.62	2768	9.87	2878	11.14	2985	12.42	3090	13.73	3292	16.36	3474	19.01
5600	1425	2620	8.13	2744	9.46	2861	10.82	2967	12.16	3070	13.52	3169	14.89	3363	17.68	3550	20.53
6000	1527	2719	8.99	2837	10.37	2952	11.80	3060	13.25	3160	14.69	3256	16.14	3441	19.08		
6400	1629	2825	9.98	2934	11.35	3044	12.83	3151	14.36	3252	15.90	3346	17.44	3525	20.52		
6800	1730	2939	11.12	3037	12.47	3140	13.95	3243	15.53	3343	17.16	3438	18.79				
7200	1832	3059	12.41	3146	13.74	3240	15.20	3338	16.80	3435	18.48	3530	20.20				
7600	1933	3183	13.86	3262	15.17	3348	16.62	3437	18.20	3530	19.89						
8000	2036	3310	15.46	3384	16.78	3461	18.20	3543	19.76								
8400	2137	3440	17.21	3509	18.56	3580	19.97										

Performance ratings shown are for fan without ducts.

Power ratings shown do not include belt drive loss.

Tip Speed = $5.83 \times RPM$  [ft/min]

Max. S.P. = $1.67 \times (RPM/1000)^2$  "W.G.

Max. Power = $0.805 \times (RPM/1000)^3$  BHP

Class I Max. Speed = 2528 RPM

Size

Class II Max. Speed = 3299 RPM

Outlet Area = 4.87 sq.ft.

Wheel Diameter = 22.25 in.

# 2225 SISW

## DESIGN 8091 CENTRIFOIL FANS

Volume O. Vel	STATIC PRESSURE ["W.G.]																
	1/2"SP		1"SP		1-1/2"SP		2"SP		2-1/2"SP		3"SP		3-1/2"SP		4"SP		4-1/2"SP
CFM	FPM	RPM	BHP	RPM	BHP												
1000	205	562	0.13														
1250	257	598	0.16														
1500	308	632	0.20	807	0.40												
1750	359	672	0.24	844	0.46	976	0.70										
2000	411	714	0.28	877	0.53	1012	0.79	1124	1.06								
1500	308	804	0.39	954	0.69	1081	1.00	1196	1.32	1294	1.65	1383	1.99				
3000	616	912	0.55	1038	0.86	1158	1.23	1264	1.60	1364	1.98	1456	2.37	1536	2.76	1612	3.17
3500	719	1030	0.78	1129	1.09	1242	1.49	1343	1.91	1434	2.34	1522	2.78	1606	3.23	1685	3.68
4000	821	1150	1.06	1235	1.39	1328	1.79	1427	2.26	1516	2.74	1597	3.23	1675	3.73	1751	4.23
4500	924	1272	1.42	1349	1.78	1426	2.17	1512	2.65	1599	3.18	1680	3.73	1754	4.27	1825	4.83
5000	1027	1395	1.84	1468	2.25	1535	2.66	1607	3.12	1685	3.67	1764	4.26	1837	4.86	1906	5.47
5500	1129	1519	2.36	1588	2.81	1650	3.25	1711	3.71	1778	4.25	1849	4.85	1921	5.49	1990	6.17
6000	1232	1643	2.96	1710	3.47	1768	3.94	1823	4.43	1881	4.95	1942	5.54	2008	6.20	2073	6.89
6500	1335	1769	3.67	1832	4.22	1888	4.75	1940	5.26	1991	5.79	2044	6.37	2101	7.01	2161	7.72
7000	1437	1895	4.49	1955	5.08	2009	5.66	2058	6.21	2106	6.77	2153	7.35	2203	7.98	2256	8.67
7500	1540	2021	5.42	2079	6.07	2131	6.70	2179	7.30	2224	7.89	2267	8.49	2312	9.12	2358	9.79
8000	1643	2148	6.48	2203	7.17	2253	7.85	2299	8.50	2342	9.13	2384	9.77	2425	10.41	2467	11.08
8500	1745	2275	7.68	2327	8.42	2376	9.14	2422	9.85	2464	10.53	2503	11.19	2541	11.86	2580	12.56
9000	1848	2403	9.03	2453	9.81	2500	10.58	2544	11.33	2584	12.05	2623	12.77	2650	13.48	2696	14.19
9500	1951	2531	10.53	2579	11.35	2624	12.16	2666	12.96	2707	13.75	2744	14.50	2779	15.25	2814	16.00
10000	2053	2659	12.18	2705	13.04	2748	13.90	2790	14.76	2829	15.59	2865	16.39	2901	17.21	2933	17.97
10500	2156	2788	14.00	2831	14.91	2873	15.82	2914	16.73	2951	17.60	2988	18.47	3021	19.30	3054	20.14
11000	2259	2916	16.01	2958	16.96	2999	17.92	3037	18.86	3074	19.79	3110	20.71	3143	21.59	3175	22.47
11500	2361	3045	18.19	3085	19.19	3125	20.20	3161	21.18	3198	22.18	3232	23.12	3266	24.10	3296	24.99
12000	2464	3175	20.58	3213	21.63	3250	22.67	3286	23.70								

Volume O. Vel	STATIC PRESSURE ["W.G.]																
	5"SP		6"SP		7"SP		8"SP		9"SP		10"SP		12"SP		14"SP		16"SP
CFM	FPM	RPM	BHP														
3500	1719	1823	4.61	1949	5.57												
4000	1821	1894	5.26	2020	6.30	2134	7.36	2243	8.49								
4500	1924	1961	5.95	2091	7.11	2207	8.26	2313	9.44	2413	10.65	2510	11.91				
5000	1027	2035	6.70	2157	7.94	2275	9.21	2386	10.49	2487	11.79	2580	13.10	2756	15.82		
5500	1129	2115	7.49	2231	8.84	2342	10.19	2452	11.59	2556	13.00	2653	14.41	2827	17.26	2988	20.24
6000	1232	2198	8.34	2312	9.79	2418	11.25	2521	12.74	2621	14.24	2719	15.76	2900	18.83	3059	21.93
6500	1335	2282	9.24	2395	10.80	2499	12.37	2597	13.94	2692	15.54	2786	17.16	2967	20.45	3133	23.78
7000	1437	2367	10.20	2479	11.87	2582	13.55	2679	15.25	2771	16.93	2859	18.64	3033	22.13	3199	25.65
7500	1540	2458	11.30	2563	13.00	2666	14.78	2762	16.59	2853	18.40	2939	20.21	3104	23.86	3265	27.59
8000	1643	2556	12.57	2651	14.26	2750	16.09	2845	18.00	2936	19.92	3021	21.84	3181	25.69		
8500	1745	2660	14.02	2746	15.68	2837	17.52	2929	19.48	3019	21.51	3104	23.55	3263	27.63		
9000	1848	2769	15.67	2847	17.30	2930	19.12	3016	21.09	3103	23.18	3188	25.32				
9500	1951	2883	17.52	2953	19.14	3028	20.92	3107	22.87	3189	24.97	3272	27.18				
10000	2053	2998	19.55	3064	21.19	3132	22.95	3204	24.87	3280	26.95						
10500	2156	3117	21.78	3178	23.45	3240	25.20										

Performance ratings shown are for fan without ducts.

Power ratings shown do not include belt drive loss.

Size

**2450 SISW****DESIGN 8091 CENTRIFOIL FANS**Tip Speed =  $6.41 \times \text{RPM}$  [ft/min]Max. S.P. =  $1.98 \times (\text{RPM}/1000)^2$  "W.G.Max. Power =  $1.59 \times (\text{RPM}/1000)^3$  BHP

Class I Max. Speed = 1883 RPM

Class II Max. Speed = 2458 RPM

Outlet Area = 5.94 sq.ft.

Wheel Diameter = 24.50 in.

Volume O. Vel	STATIC PRESSURE ["W.G.]																
	1/2"SP		1"SP		1-1/2"SP		2"SP		2-1/2"SP		3"SP		3-1/2"SP		4"SP		4-1/2"SP
CFM	FPM	RPM	BHP	RPM	BHP												
2000	337	535	0.24														
2500	421	579	0.31	735	0.59												
3000	505	630	0.39	771	0.71	896	1.07										
3500	589	686	0.49	816	0.85	930	1.24	1037	1.66	1141	2.11						
4000	673	745	0.61	864	1.01	973	1.44	1070	1.88	1163	2.36	1256	2.86				
4500	758	806	0.76	919	1.20	1019	1.66	1113	2.15	1198	2.65	1281	3.18	1364	3.73	1446	4.32
5000	842	871	0.94	976	1.41	1069	1.91	1158	2.44	1241	2.98	1318	3.54	1393	4.11	1468	4.72
5500	926	938	1.16	1034	1.65	1124	2.19	1206	2.75	1286	3.34	1362	3.94	1432	4.54	1500	5.17
6000	1010	1008	1.41	1094	1.93	1181	2.50	1258	3.10	1333	3.72	1406	4.36	1475	5.01	1541	5.68
6500	1094	1078	1.71	1157	2.24	1239	2.85	1314	3.49	1384	4.15	1453	4.82	1520	5.52	1584	6.22
7000	1179	1150	2.05	1222	2.61	1298	3.24	1371	3.91	1439	4.61	1503	5.32	1567	6.05	1629	6.80
7500	1263	1222	2.43	1289	3.02	1359	3.67	1429	4.38	1495	5.11	1557	5.86	1617	6.62	1676	7.41
8000	1347	1295	2.87	1357	3.49	1422	4.16	1488	4.90	1552	5.66	1613	6.45	1670	7.25	1726	8.07
8500	1431	1368	3.36	1427	4.01	1486	4.71	1549	5.46	1611	6.26	1670	7.09	1726	7.93	1779	8.77
9000	1515	1442	3.91	1497	4.59	1553	5.31	1611	6.09	1670	6.91	1728	7.78	1782	8.65	1834	9.54
9500	1599	1516	4.52	1568	5.23	1621	5.98	1675	6.77	1731	7.63	1786	8.52	1840	9.43	1891	10.35
10000	1684	1590	5.19	1640	5.94	1690	6.71	1740	7.53	1793	8.40	1846	9.32	1898	10.27	1948	11.23
10500	1768	1664	5.93	1713	6.71	1760	7.52	1807	8.36	1856	9.25	1907	10.19	1957	11.17	2007	12.17
11000	1852	1739	6.74	1785	7.55	1830	8.39	1875	9.26	1922	10.17	1969	11.13	2017	12.13	2065	13.17
11500	1936	1814	7.63	1858	8.47	1901	9.34	1944	10.23	1988	11.17	2033	12.14	2079	13.17	2125	14.23
12000	2020	1889	8.59	1932	9.47	1973	10.37	2014	11.29	2056	12.25	2098	13.25	2141	14.30	2186	15.38
12500	2104	1965	9.64	2005	10.55	2046	11.48	2085	12.43	2124	13.41	2164	14.43	2205	15.49	2247	16.60
13000	2189	2040	10.77	2079	11.71	2118	12.67	2156	13.65	2193	14.66	2232	15.71	2271	16.79	2310	17.91
14000	2357	2191	13.28	2227	14.29	2264	15.32	2299	16.37	2334	17.44	2369	18.53	2404	19.66	2440	20.83
15000	2525	2342	16.18	2376	17.25	2411	18.36	2444	19.47								

Volume O. Vel	STATIC PRESSURE ["W.G.]																
	5"SP		5-1/2"SP		6"SP		6-1/2"SP		7"SP		8"SP		9"SP		10"SP		11"SP
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
5500	926	1635	6.49	1703	7.19	1769	7.91	1833	8.64								
6000	1010	1665	7.04	1727	7.76	1789	8.50	1852	9.26	1913	10.05						
6500	1094	1704	7.65	1761	8.39	1818	9.15	1873	9.93	1933	10.73	2046	12.39	2156	14.11		
7000	1179	1747	8.31	1802	9.09	1856	9.87	1909	10.68	1962	11.49	2069	13.19	2174	14.95	2276	16.77
7500	1263	1791	9.02	1846	9.83	1898	10.55	1949	11.48	1999	12.32	2097	14.05	2197	15.87	2296	17.76
8000	1347	1836	9.75	1890	10.61	1941	11.47	1992	12.34	2041	13.23	2134	15.00	2227	16.85	2320	18.76
8500	1431	1884	10.53	1936	11.43	1987	12.34	2036	13.26	2084	14.17	2176	16.04	2264	17.92	2351	19.87
9000	1515	1935	11.36	1984	12.29	2033	13.25	2081	14.20	2128	15.16	2220	17.13	2305	19.08	2388	21.08
9500	1599	1988	12.25	2035	13.22	2082	14.21	2128	15.20	2174	16.19	2264	18.24	2349	20.30	2430	22.37
10000	1684	2043	13.19	2088	14.20	2133	15.22	2178	16.25	2221	17.28	2309	19.41	2393	21.56		
10500	1768	2099	14.21	2143	15.24	2187	16.30	2230	17.37	2272	18.43	2356	20.63	2438	22.86		
11000	1852	2157	15.29	2200	16.35	2242	17.44	2283	18.55	2324	19.65	2405	21.92				
11500	1936	2215	16.42	2257	17.54	2298	18.65	2338	19.78	2378	20.95	2456	23.26				
12000	2020	2273	17.62	2315	18.78	2356	19.95	2395	21.10	2434	22.29						
12500	2104	2332	18.91	2373	20.09	2413	21.29	2453	22.52								

Performance ratings shown are for fan without ducts.

Power ratings shown do not include belt drive loss.

Tip Speed =  $7.07 \times RPM$  [ft/min]

Max. S.P. =  $2.41 \times (RPM/1000)^2$  "W.G.

Max. Power =  $2.58 \times (RPM/1000)^3$  BHP

Class I Max. Speed = 1709 RPM

Size

Class II Max. Speed = 2230 RPM

Outlet Area = 7.21 sq.ft.

Wheel Diameter = 27.00 in.

**2700** SISW

## DESIGN 8091 CENTRIFOIL FANS

Volume O. Vel	STATIC PRESSURE ["W.G.]																
	1/2"SP		1"SP		1-1/2"SP		2"SP		2-1/2"SP		3"SP		3-1/2"SP		4"SP		4-1/2"SP
CFM	FPM	RPM	BHP	RPM	BHP												
2500	347	490	0.30														
3000	416	523	0.37	665	0.71												
3500	485	560	0.45	691	0.83	809	1.25										
4000	555	601	0.54	723	0.96	829	1.41	932	1.91								
4500	624	644	0.65	758	1.11	860	1.60	952	2.12	1043	2.68						
5000	693	688	0.78	796	1.28	892	1.81	980	2.36	1062	2.94	1145	3.57	1224	4.22		
5500	763	735	0.94	837	1.47	927	2.04	1012	2.63	1090	3.24	1164	3.88	1239	4.56	1313	5.28
6000	832	783	1.12	879	1.68	964	2.28	1046	2.92	1121	3.57	1192	4.24	1260	4.93	1329	5.67
6500	902	833	1.32	923	1.91	1005	2.55	1081	3.22	1154	3.92	1223	4.63	1288	5.36	1351	6.10
7000	971	884	1.56	967	2.17	1047	2.85	1119	3.56	1189	4.29	1257	5.05	1320	5.81	1380	6.60
7500	1040	937	1.84	1013	2.47	1090	3.18	1159	3.93	1226	4.70	1290	5.49	1353	6.30	1411	7.12
8000	1110	990	2.14	1060	2.80	1133	3.54	1201	4.32	1264	5.13	1326	5.96	1387	6.81	1444	7.67
8500	1179	1043	2.49	1109	3.17	1177	3.93	1244	4.75	1305	5.59	1364	6.46	1422	7.35	1478	8.26
9000	1248	1097	2.87	1158	3.58	1223	4.36	1287	5.22	1347	6.10	1404	7.00	1459	7.92	1513	8.87
9500	1318	1151	3.29	1209	4.03	1269	4.84	1331	5.72	1390	6.64	1445	7.57	1498	8.53	1550	9.51
10000	1386	1206	3.76	1261	4.52	1317	5.35	1376	6.26	1434	7.22	1487	8.19	1539	9.18	1589	10.20
11000	1526	1316	4.83	1366	5.66	1416	6.54	1468	7.49	1522	8.49	1574	9.55	1623	10.61	1670	11.70
12000	1664	1427	6.11	1473	7.00	1518	7.93	1565	8.92	1613	9.97	1662	11.08	1710	12.22	1756	13.38
13000	1803	1538	7.60	1581	8.56	1623	9.55	1665	10.58	1708	11.67	1753	12.82	1798	14.02	1842	15.26
14000	1942	1650	9.33	1690	10.35	1729	11.41	1768	12.49	1807	13.63	1848	14.82	1889	16.06	1931	17.35
15000	2080	1762	11.32	1800	12.41	1836	13.53	1873	14.68	1909	15.86	1946	17.09	1984	18.37	2022	19.70
16000	2219	1875	13.58	1910	14.74	1945	15.92	1978	17.12	2012	18.36	2047	19.64	2081	20.97	2117	22.33
17000	2358	1988	16.13	2021	17.35	2054	18.60	2086	19.88	2118	21.18	2149	22.49	2181	23.86	2214	25.28
18000	2497	2101	18.98	2132	20.28	2163	21.60	2194	22.94	2224	24.29						
19000	2635	2214	22.17														

Volume O. Vel	STATIC PRESSURE ["W.G.]																
	5"SP		5-1/2"SP		6"SP		6-1/2"SP		7"SP		8"SP		9"SP		10"SP		11"SP
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
6000	832	1463	7.21														
6500	902	1478	7.71	1540	8.55	1600	9.40										
7000	971	1497	8.23	1556	9.09	1614	9.98	1672	10.89	1727	11.81						
7500	1040	1523	8.80	1577	9.68	1632	10.59	1687	11.52	1741	12.48	1846	14.44				
8000	1110	1553	9.43	1604	10.33	1655	11.25	1707	12.21	1759	13.20	1860	15.20	1958	17.29		
8500	1179	1585	10.10	1635	11.03	1684	11.99	1732	12.96	1780	13.95	1877	16.02				
9000	1248	1618	10.80	1668	11.78	1716	12.77	1762	13.76	1807	14.77	1898	16.88	1989	19.07	2080	21.33
9500	1317	1652	11.53	1701	12.55	1748	13.58	1793	14.61	1837	15.66	1924	17.81	2010	20.04	2097	22.35
10000	1387	1687	12.28	1735	13.35	1781	14.42	1826	15.50	1869	16.59	1954	18.80	2036	21.08	2118	23.42
11000	1526	1761	13.92	1806	15.06	1850	16.22	1893	17.38	1936	18.55	2018	20.94	2097	23.35	2172	25.79
12000	1664	1842	15.75	1883	16.95	1924	18.17	1965	19.43	2005	20.67	2085	23.23	2161	25.79		
13000	1803	1926	17.78	1966	19.06	2005	20.36	2043	21.65	2080	22.98	2155	25.66	2229	28.41		
14000	1942	2012	20.02	2051	21.39	2088	22.74	2125	24.12	2161	25.53						
15000	2080	2100	22.50	2138	23.92	2174	25.35	2210	26.82								
16000	2219	2189	25.22	2226	26.71												

Performance ratings shown are for fan without ducts.

Power ratings shown do not include belt drive loss.

Size

**3000 SISW****DESIGN 8091 CENTRIFOIL FANS**Tip Speed =  $7.85 \times \text{RPM}$  [ft/min]Max. S.P. =  $2.98 \times (\text{RPM}/1000)^2$  "W.G.Max. Power =  $4.37 \times (\text{RPM}/1000)^3$  BHP

Class I Max. Speed = 1538 RPM

Class II Max. Speed = 2007 RPM

Outlet Area = 8.91 sq.ft.

Wheel Diameter = 30.00 in.

Volume O. Vel	STATIC PRESSURE ["W.G.]																
	1/2"SP		1"SP		1-1/2"SP		2"SP		2-1/2"SP		3"SP		3-1/2"SP		4"SP		4-1/2"SP
CFM	FPM	RPM	BHP	RPM	BHP												
4000	449	486	0.50	608	0.94	721	1.45										
4500	505	514	0.58	630	1.07	732	1.50										
5000	561	545	0.68	654	1.21	749	1.77	841	2.38								
5500	617	576	0.79	679	1.35	771	1.95	855	2.59	937	3.28						
6000	673	608	0.92	706	1.52	795	2.16	874	2.83	950	3.54	1026	4.30				
6500	730	641	1.06	735	1.70	819	2.38	897	3.09	968	3.82	1039	4.60	1108	5.43	1176	6.29
7000	786	676	1.23	766	1.90	845	2.61	921	3.36	990	4.13	1056	4.94	1121	5.78	1186	6.67
7500	841	711	1.41	797	2.11	873	2.87	946	3.66	1014	4.47	1077	5.31	1138	6.17	1199	7.08
8000	898	748	1.62	829	2.35	903	3.14	971	3.96	1038	4.82	1100	5.70	1158	6.59	1215	7.51
8500	954	785	1.86	861	2.61	933	3.44	999	4.30	1063	5.19	1124	6.11	1181	7.05	1236	8.00
9000	1010	823	2.12	894	2.89	964	3.76	1028	4.65	1089	5.58	1148	6.54	1205	7.52	1258	8.51
10000	1122	900	2.72	963	3.54	1028	4.47	1089	5.44	1145	6.44	1200	7.48	1254	8.53	1306	9.52
11000	1235	979	3.45	1034	4.32	1093	5.29	1152	6.34	1206	7.41	1257	8.51	1307	9.65	1356	10.81
12000	1347	1058	4.31	1109	5.24	1161	6.25	1216	7.35	1268	8.50	1318	9.68	1364	10.88	1410	12.10
13000	1459	1138	5.31	1185	6.30	1232	7.35	1282	8.50	1332	9.72	1380	10.97	1425	12.25	1469	13.55
14000	1571	1218	6.47	1262	7.52	1306	8.63	1351	9.81	1397	11.08	1443	12.40	1487	13.75	1529	15.12
15000	1684	1299	7.80	1340	8.91	1380	10.07	1422	11.30	1465	12.61	1508	13.98	1551	15.40	1592	16.85
16000	1796	1380	9.30	1419	10.48	1457	11.71	1495	12.98	1534	14.32	1574	15.74	1615	17.22	1655	18.74
17000	1908	1462	11.00	1498	12.24	1534	13.53	1570	14.86	1606	16.24	1643	17.70	1681	19.23	1719	20.80
18000	2020	1544	12.90	1578	14.21	1612	15.56	1646	16.95	1679	18.38	1714	19.88	1749	21.45	1785	23.07
19000	2133	1626	15.02	1659	16.41	1691	17.82	1722	19.25	1754	20.74	1786	22.28	1819	23.88	1853	25.55
20000	2245	1708	17.36	1739	18.81	1770	20.29	1800	21.79	1830	23.33	1860	24.93	1891	26.57	1922	28.25
21000	2357	1790	19.94	1820	21.45	1849	23.00	1878	24.58	1907	26.18	1935	27.81	1964	29.50	1944	31.25
22000	2469	1872	22.77	1901	24.35	1929	25.97	1957	27.62	1984	29.26						
23000	2581	1955	25.86	1982	27.52												

Volume O. Vel	STATIC PRESSURE ["W.G.]																
	5"SP		5-1/2"SP		6"SP		6-1/2"SP		7"SP		8"SP		9"SP		10"SP		11"SP
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
7500	842	1319	9.00														
8000	898	1330	9.49	1386	10.53	1440	11.58										
8500	954	1343	10.00	1397	11.06	1450	12.15	1501	13.25								
9000	1010	1360	10.56	1411	11.63	1462	12.75	1512	13.89	1562	15.07						
10000	1122	1403	11.80	1449	12.93	1495	14.08	1540	15.26	1586	16.46	1677	18.98	1765	21.56		
11000	1235	1451	13.17	1495	14.36	1539	15.58	1581	16.82	1622	18.05	1705	20.64	1787	23.33	1859	26.12
12000	1347	1500	14.62	1544	15.91	1586	17.21	1627	18.52	1667	19.85	1743	22.51	1819	25.27	1894	28.14
13000	1459	1553	16.21	1594	17.58	1635	18.96	1672	20.34	1714	21.74	1789	24.58	1860	27.47	1930	30.43
14000	1571	1609	17.92	1648	19.35	1687	20.81	1725	22.29	1763	23.79	1836	26.78	1906	29.81	1973	32.88
15000	1684	1669	19.80	1706	21.30	1743	22.84	1779	24.37	1815	25.92	1886	29.11	1955	32.34		
16000	1796	1730	21.84	1766	23.42	1801	25.02	1835	26.62	1870	28.25	1937	31.56	2004	34.94		
17000	1908	1793	24.05	1828	25.71	1852	27.38	1895	29.04	1928	30.75	1992	34.19				
18000	2020	1856	26.44	1891	28.17	1924	29.94	1956	31.66	1988	33.44						
19000	2132	1921	29.03	1954	30.83	1987	32.66										
20000	2245	1987	31.86														

Performance ratings shown are for fan without ducts.

Power ratings shown do not include belt drive loss.

Tip Speed = 8.64 x RPM [ft/min]

Max. S.P. = 3.59 x (RPM/1000)<sup>2</sup> "W.G.

Max. Power = 6.72 x (RPM/1000)<sup>3</sup> BHP

Class I Max. Speed = 1402 RPM

Class II Max. Speed = 1829 RPM

Outlet Area = 10.80 sq.ft.

Wheel Diameter = 33.00 in.

Size

**3300** SISW

DESIGN 8091 CENTRIFOIL FANS

Volume O. Vel	STATIC PRESSURE ["W.G.]																
	1/2"SP		1"SP		1-1/2"SP		2"SP		2-1/2"SP		3"SP		3-1/2"SP		4"SP		4-1/2"SP
CFM	FPM	RPM	BHP	RPM	BHP												
4000	370	411	0.46	537	0.93	659	1.73	765	2.75	860	3.98	930	4.85	1012	6.40	1073	7.40
5000	463	449	0.60	559	1.13	681	2.04	788	3.17	886	4.52	949	5.44				
6000	556	494	0.78	594	1.39	715	2.41	822	3.66								
7000	648	541	1.00	632	1.68	751	2.82										
8000	741	591	1.28	676	2.02												
9000	833	643	1.61	722	2.42	792	3.29	859	4.21	921	5.15	979	6.12	1034	7.12	1090	8.17
10000	926	689	2.03	770	2.89	836	3.83	898	4.81	957	5.83	1014	6.89	1066	7.94	1117	9.04
11000	1019	755	2.52	819	3.42	883	4.44	941	5.49	996	6.58	1050	7.71	1101	8.85	1150	10.03
12000	1111	813	3.10	871	4.05	931	5.12	987	6.24	1038	7.40	1089	8.59	1138	9.83	1186	11.07
13000	1204	872	3.78	924	4.77	979	5.89	1034	7.08	1083	8.31	1131	9.58	1177	10.87	1223	12.19
14000	1296	931	4.55	979	5.60	1030	6.76	1081	8.01	1130	9.32	1176	10.65	1220	12.02	1262	13.40
15000	1389	991	5.44	1036	6.54	1082	7.74	1130	9.04	1178	10.43	1222	11.82	1264	13.25	1305	14.72
16000	1482	1051	6.45	1093	7.61	1136	8.85	1180	10.19	1226	11.63	1269	13.10	1310	14.61	1349	16.14
17000	1574	1111	7.58	1151	8.80	1191	10.09	1232	11.47	1275	12.95	1317	14.49	1357	16.07	1395	17.67
18000	1667	1172	8.84	1210	10.13	1247	11.47	1285	12.90	1325	14.41	1365	16.00	1404	17.65	1442	19.33
19000	1759	1233	10.25	1269	11.60	1304	13.00	1340	14.46	1377	16.01	1415	17.66	1453	19.37	1490	21.12
20000	1852	1294	11.80	1329	13.22	1362	14.67	1396	16.19	1430	17.79	1466	19.46	1502	21.21	1537	23.02
21000	1944	1356	13.51	1388	14.99	1420	16.51	1452	18.07	1484	19.71	1518	21.42	1552	23.21	1586	25.07
22000	2037	1417	15.39	1448	15.93	1479	18.51	1509	20.14	1540	21.82	1571	23.58	1603	25.40	1636	27.30
23000	2130	1479	17.45	1509	19.05	1538	20.70	1567	22.37	1596	24.09	1626	25.89	1656	27.75	1687	29.70
24000	2222	1540	19.67	1569	21.34	1598	23.04	1625	24.78	1653	26.56	1681	28.41	1709	30.31	1739	32.28
25000	2315	1601	22.09	1630	23.82	1657	25.59	1684	27.38	1711	29.24	1737	31.11	1764	33.05	1792	35.07
26000	2407	1664	24.69	1691	26.49	1717	28.33	1743	30.20	1768	32.08	1794	34.02	1820	36.02		
27000	2500	1726	27.51	1752	29.37	1777	31.28	1802	33.21	1827	35.14						
28000	2593	1788	30.53	1813	32.46												

Volume O. Vel	STATIC PRESSURE ["W.G.]																
	5"SP		5-1/2"SP		6"SP		6-1/2"SP		7"SP		8"SP		9"SP		10"SP		11"SP
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
10000	926	1217	11.35	1267	12.56	1316	13.81	1380	16.31	1424	17.66						
11000	1019	1242	12.41	1288	13.67	1334	14.97	1401	17.61	1443	19.02	1525	21.91	1606	24.90	1698	29.83
12000	1111	1275	13.60	1317	14.90	1359	16.24	1430	19.06	1468	20.51	1545	23.48	1623	26.62	1715	31.70
13000	1204	1310	14.91	1351	16.28	1391	17.66	1426	19.19	1464	20.69	1500	22.17	1572	25.23	1643	28.39
14000	1296	1347	16.26	1387	17.72			1426	19.19	1500	22.17	1572	25.23	1643	28.39	1715	31.70
15000	1389	1385	17.73	1424	19.27	1462	20.81	1499	22.36	1535	23.93	1604	27.12	1671	30.41	1738	33.78
16000	1482	1425	19.27	1462	20.87	1499	22.50	1536	24.14	1571	25.82	1639	29.14	1703	32.53	1766	36.00
17000	1574	1468	20.94	1503	22.60	1539	24.30	1574	26.03	1608	27.78	1675	31.28	1738	34.82	1799	38.40
18000	1667	1513	22.73	1547	24.47	1580	26.23	1614	28.04	1647	29.83	1712	33.51	1774	37.21		
19000	1759	1559	24.66	1591	26.46	1624	28.29	1656	30.16	1687	32.02	1750	35.85	1811	39.71		
20000	1852	1606	26.74	1638	28.50	1669	30.49	1700	32.42	1730	34.35	1790	38.31				
21000	1944	1653	28.93	1685	30.89	1715	32.83	1745	34.82	1775	36.85						
22000	2037	1700	31.25	1732	33.29	1762	35.34	1791	37.38	1820	39.47						
23000	2130	1749	33.76	1779	35.84	1809	37.38										
24000	2222	1798	36.44	1828	38.59												

Performance ratings shown are for fan without ducts.

Power ratings shown do not include belt drive loss.

Size

# 3650 SISW

## DESIGN 8091 CENTRIFOIL FANS

Tip Speed =  $9.56 \times RPM$  [ft/min]Max. S.P. =  $4.39 \times (RPM/1000)^2$  "W.G.Max. Power =  $11.1 \times (RPM/1000)^3$  BHP

Class I Max. Speed = 1268 RPM

Class II Max. Speed = 1654 RPM

Outlet Area = 13.21 sq.ft.

Wheel Diameter = 36.50 in.

Volume O. Vel	STATIC PRESSURE ["W.G.]																
	1/2"SP		1"SP		1-1/2"SP		2"SP		2-1/2"SP		3"SP		3-1/2"SP		4"SP		4-1/2"SP
CFM	FPM	RPM	BHP	RPM	BHP												
4000	303	351	0.45														
5000	379	375	0.58	487	1.15												
6000	454	403	0.72	503	1.36	595	2.08										
7000	530	435	0.89	528	1.61	609	2.38	687	3.24								
8000	606	469	1.10	555	1.88	631	2.73	701	3.63	770	4.61						
9000	681	505	1.34	585	2.20	658	3.12	723	4.08	785	5.09	846	6.18	906	7.33		
10000	757	542	1.63	618	2.55	686	3.55	749	4.60	806	5.66	862	6.79	918	7.98	973	9.22
11000	833	581	1.97	653	2.96	716	4.02	776	5.14	832	6.29	884	7.48	935	8.70	986	9.99
12000	908	622	2.38	688	3.41	748	4.55	805	5.74	859	6.97	910	8.23	958	9.52	1004	10.84
13000	984	663	2.84	724	3.93	783	5.14	836	6.39	887	7.70	937	9.04	984	10.40	1028	11.79
14000	1060	706	3.38	761	4.51	817	5.78	869	7.11	917	8.48	965	9.90	1011	11.35	1054	12.82
15000	1136	749	4.00	800	5.17	853	6.50	903	7.89	949	9.33	994	10.83	1038	12.34	1081	13.90
16000	1211	792	4.69	839	5.91	889	7.28	938	8.75	983	10.26	1026	11.81	1067	13.40	1108	15.03
17000	1287	836	5.47	880	6.74	926	8.15	973	9.68	1017	11.27	1059	12.89	1098	14.55	1138	16.23
18000	1363	880	6.33	922	7.66	965	9.11	1009	10.69	1052	12.35	1093	14.04	1131	15.77	1168	17.53
19000	1438	925	7.29	964	8.68	1004	10.17	1046	11.79	1087	13.51	1127	15.29	1165	17.08	1201	18.90
20000	1514	969	8.36	1007	9.80	1044	11.34	1083	13.00	1123	14.77	1162	16.62	1199	18.48	1234	20.37
21000	1590	1014	9.52	1050	11.02	1085	12.62	1122	14.31	1160	16.13	1198	18.03	1234	19.97	1268	21.94
22000	1665	1059	10.79	1093	12.36	1127	14.00	1161	15.75	1197	17.59	1233	19.55	1269	21.57	1303	23.62
24000	1817	1149	13.69	1181	15.39	1211	17.15	1243	18.98	1274	20.90	1307	22.94	1340	25.06	1373	27.24
26000	1968	1240	17.09	1269	18.92	1297	20.79	1326	22.73	1355	24.74	1384	26.85	1415	29.05	1445	31.35
28000	2120	1331	21.05	1358	23.01	1385	25.01	1411	27.05	1437	29.15	1454	31.34	1492	33.62	1520	35.99
30000	2271	1422	25.58	1447	27.66	1473	29.79	1497	31.95	1522	34.17	1545	36.46	1571	38.80	1597	41.24
32000	2422	1513	30.73	1537	32.94	1561	35.21	1584	37.51	1607	39.82	1630	42.20	1653	44.66		
34000	2574	1605	36.56	1627	38.90	1650	41.31										

Volume O. Vel	STATIC PRESSURE ["W.G.]																
	5"SP		5-1/2"SP		6"SP		6-1/2"SP		7"SP		8"SP		9"SP		10"SP		11"SP
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
11000	833	1084	12.70														
12000	908	1097	13.65	1143	15.13	1187	16.63										
13000	984	1114	14.69	1157	16.21	1199	17.78	1241	19.37	1282	20.99						
14000	1060	1136	15.81	1175	17.37	1215	18.97	1255	20.63	1295	22.34	1371	25.78				
15000	1136	1161	17.06	1199	18.68	1236	20.31	1273	21.98	1309	23.71	1384	27.32	1456	31.01		
16000	1211	1187	18.36	1224	20.04	1260	21.74	1295	23.47	1330	25.25	1399	28.88	1468	32.72	1537	36.68
17000	1287	1214	19.72	1250	21.49	1286	23.27	1320	25.08	1353	26.91	1418	30.62	1483	34.49	1548	38.53
18000	1363	1242	21.15	1278	23.00	1312	24.88	1346	26.78	1379	28.66	1442	32.51	1503	36.45	1564	40.54
19000	1438	1271	22.66	1306	24.59	1340	26.55	1373	28.53	1405	30.49	1467	34.51	1526	38.55	1584	42.72
20000	1514	1302	24.26	1335	26.26	1368	28.29	1400	30.35	1432	32.39	1493	36.59	1551	40.77	1607	45.05
21000	1590	1334	25.96	1366	28.02	1397	30.12	1429	32.26	1459	34.37	1520	38.73	1577	43.09	1632	47.50
22000	1665	1367	27.77	1398	29.89	1428	32.05	1458	34.25	1488	36.45	1547	40.95	1604	45.47		
24000	1817	1435	31.71	1465	33.99	1493	36.26	1521	38.56	1549	40.92	1604	45.66				
26000	1968	1505	36.11	1534	38.49	1561	40.92	1588	43.40	1615	45.85						
28000	2120	1576	40.95	1604	43.49	1631	46.08										

Performance ratings shown are for fan without ducts.

Power ratings shown do not include belt drive loss.

Tip Speed =  $10.54 \times RPM$  [ft/min]

Max. S.P. =  $5.34 \times (RPM/1000)^2$  "W.G.

Max. Power =  $18.1 \times (RPM/1000)^3$  BHP

Class I Max. Speed = 1150 RPM

Size

Class II Max. Speed = 1500 RPM

Outlet Area = 16.07 sq.ft.

Wheel Diameter = 40.25 in.

**4025** SISW

DESIGN 8091 CENTRIFOIL FANS

Volume O. Vel	STATIC PRESSURE ["W.G.]																
	1/2"SP		1"SP		1-1/2"SP		2"SP		2-1/2"SP		3"SP		3-1/2"SP		4"SP		4-1/2"SP
CFM	FPM	RPM	BHP	RPM	BHP												
7000	436	359	0.83	452	1.59	546	2.74	628	4.12	701	5.72	712	6.23	768	7.55	822	8.94
8000	498	382	0.99	469	1.82	559	3.06	640	4.53								
9000	560	407	1.18	488	2.09	578	3.42	657	4.99								
10000	622	433	1.39	509	2.37	598	3.82										
11000	685	459	1.64	532	2.69												
12000	747	487	1.93	556	3.04	618	4.24	676	5.50	728	6.79	780	8.15	831	9.60	880	11.08
13000	809	516	2.26	582	3.44	640	4.71	696	6.04	747	7.41	795	8.82	842	10.29	890	11.85
14000	871	546	2.64	608	3.88	664	5.21	717	6.62	767	8.07	814	9.55	858	11.08	902	12.66
15000	933	576	3.07	635	4.36	689	5.76	739	7.24	787	8.77	833	10.34	876	11.92	918	13.56
16000	996	608	3.56	662	4.88	715	6.37	762	7.90	809	9.50	853	11.15	896	12.84	936	14.53
17000	1058	639	4.10	689	5.47	741	7.02	787	8.63	831	10.29	874	12.01	916	13.78	955	15.56
18000	1120	671	4.70	718	6.12	767	7.72	813	9.40	855	11.14	896	12.93	936	14.76	975	16.64
19000	1182	704	5.37	748	6.84	794	8.48	839	10.24	880	12.04	919	13.90	958	15.80	996	17.77
20000	1245	736	6.11	778	7.62	821	9.31	865	11.14	905	13.01	943	14.93	980	16.90	1017	18.94
22000	1369	802	7.80	839	9.42	878	11.19	918	13.11	957	15.14	994	17.21	1029	19.33	1062	21.46
24000	1494	868	9.81	903	11.55	937	13.40	973	15.41	1010	17.55	1045	19.76	1079	22.01	1111	24.29
26000	1618	935	12.15	967	14.01	998	15.97	1031	18.05	1065	20.27	1098	22.62	1131	25.01	1162	27.44
28000	1742	1002	14.86	1032	16.85	1061	18.91	1091	21.08	1121	23.38	1153	25.82	1184	28.35	1214	30.93
30000	1867	1069	17.96	1097	20.08	1125	22.26	1152	24.54	1180	26.92	1209	29.43	1238	32.05	1267	34.75
32000	1991	1137	21.50	1163	23.74	1189	26.04	1214	28.42	1240	30.89	1267	33.46	1294	36.16	1321	38.97
34000	2116	1205	25.49	1230	27.87	1254	30.30	1278	32.78	1302	35.34	1326	37.99	1351	40.76	1377	43.64
36000	2240	1273	29.96	1296	32.46	1320	35.01	1342	37.61	1365	40.28	1387	43.05	1410	45.88	1434	48.82
38000	2365	1341	34.93	1363	37.56	1385	40.24	1407	42.98	1428	45.76	1449	48.59	1471	51.53	1493	54.57
40000	2489	1409	40.43	1431	43.20	1452	46.03	1472	48.89	1492	51.76						
42000	2614	1478	46.51	1498	49.41												

Volume O. Vel	STATIC PRESSURE ["W.G.]																
	5"SP		5-1/2"SP		6"SP		6-1/2"SP		7"SP		8"SP		9"SP		10"SP		11"SP
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
14000	871	989	16.03	1031	17.78			1119	22.59								
15000	933	1000	17.02	1040	18.83	1080	20.71	1127	23.78	1164	25.78						
16000	996	1013	18.06	1051	19.91	1089	21.82	1138	25.05	1174	27.13	1243	31.32				
17000	1056	1029	19.20	1065	21.09	1101	23.04	1151	26.42	1184	28.49	1252	32.83	1318	37.29		
18000	1120	1048	20.43	1083	22.37	1117	24.36	1223	32.76	1252	35.04	1310	39.77				
19000	1182	1068	21.72	1101	23.73	1134	25.79	1223	32.76	1252	35.04	1310	39.77	1365	44.56	1420	49.54
20000	1245	1087	23.06	1121	25.16	1153	27.29	1223	32.76	1252	35.04	1310	39.77	1365	44.56	1420	49.54
22000	1369	1128	25.88	1161	28.15	1192	30.44	1263	36.29	1292	38.80	1348	43.78	1400	48.83	1452	54.00
24000	1494	1173	28.98	1203	31.38	1233	33.82	1305	40.10	1333	42.74	1387	48.08	1440	53.52	1489	58.98
26000	1618	1221	32.41	1249	34.95	1278	37.51	1305	40.10	1333	42.74	1387	48.08	1440	53.52	1489	58.98
28000	1742	1271	36.18	1298	38.83	1325	41.52	1351	44.27	1377	47.06	1429	52.67	1479	58.38		
30000	1867	1323	40.29	1349	43.08	1375	45.93	1400	48.84	1424	51.69	1473	57.61				
32000	1991	1375	44.77	1401	47.72	1426	50.72	1450	53.75	1474	56.74						
34000	2116	1428	49.67	1453	52.75	1478	55.90										
36000	2240	1482	55.05														

Performance ratings shown are for fan without ducts.

Power ratings shown do not include belt drive loss.

Size

**4450 SISW****DESIGN 8091 CENTRIFOIL FANS**Tip Speed =  $11.65 \times \text{RPM}$  [ft/min]Max. S.P. =  $6.48 \times (\text{RPM}/1000)^2$  "W.G.Max. Power =  $28.7 \times (\text{RPM}/1000)^3$  BHP

Class I Max. Speed = 1041 RPM

Class II Max. Speed = 1359 RPM

Outlet Area = 19.63 sq.ft.

Wheel Diameter = 44.50 in.

Volume O. Vel	STATIC PRESSURE ["W.G.]																
	1/2"SP		1"SP		1-1/2"SP		2"SP		2-1/2"SP		3"SP		3-1/2"SP		4"SP		4-1/2"SP
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
7000	357	302	0.77	405 1.77		490 3.03		578 5.27		635 6.69							
8000	408	317	0.90	415 1.98		497 3.31		521 3.97									
9000	458	333	1.05	429 2.21		514 3.48		569 4.99		619 6.64		665 8.36		710 10.15		752 11.98	
10000	509	350	1.21	429 2.21		509 4.42		560 6.01		609 7.81		700 9.66		741 11.59		782 13.58	
12000	611	388	1.60	459 2.74		651 7.23		695 9.12		737 11.13		776 13.19		813 15.31		850 17.49	
14000	713	428	2.09	493 3.37		551 4.75		604 6.18		653 7.76		702 9.26		750 10.95		809 14.12	
16000	815	470	2.71	530 4.11		583 5.63		633 7.21		680 8.85		724 10.52		766 12.28		829 15.76	
18000	917	514	3.48	569 4.99		619 6.64		665 8.36		710 10.15		752 11.98		791 13.85		867 17.75	
20000	1019	560	4.42	609 6.01		657 7.81		700 9.66		741 11.59		782 13.58		820 15.60		856 17.66	
22000	1121	608	5.55	651 7.23		695 9.12		737 11.13		776 13.19		813 15.31		850 17.49		919 21.94	
24000	1223	656	6.88	694 8.65		735 10.64		775 12.77		813 14.98		848 17.23		882 19.54		916 21.89	
26000	1325	704	8.43	740 10.31		776 12.37		814 14.62		851 16.96		885 19.34		917 21.79		949 24.30	
28000	1426	753	10.22	786 12.21		819 14.35		854 16.69		889 19.14		923 21.69		954 24.26		984 26.88	
30000	1528	802	12.27	833 14.37		864 16.60		896 19.01		929 21.57		961 24.26		991 26.97		1021 29.72	
32000	1630	851	14.59	880 16.81		909 19.14		939 21.62		969 24.26		1000 27.06		1030 29.91		1058 32.81	
34000	1732	901	17.19	929 19.55		955 21.98		983 24.54		1011 27.27		1040 30.14		1069 33.11		1097 36.16	
36000	1834	951	20.12	977 22.59		1002 25.14		1028 27.80		1054 30.59		1081 33.53		1108 36.60		1135 39.77	
38000	1936	1001	23.37	1026 25.96		1050 28.62		1074 31.38		1098 34.26		1123 37.27		1149 40.43		1175 43.70	
40000	2038	1051	26.97	1075 29.69		1098 32.47		1120 35.33		1143 38.30		1167 41.40		1191 44.63		1215 47.98	
42000	2140	1101	30.94	1124 33.79		1146 36.70		1167 39.66		1189 42.71		1211 45.88		1234 49.18		1257 52.61	
44000	2242	1152	35.29	1173 38.26		1194 41.28		1215 44.35		1235 47.52		1256 50.80		1277 54.17		1299 57.65	
46000	2343	1202	40.03	1223 43.12		1243 46.27		1263 49.48		1282 52.77		1302 56.10		1322 59.55		1342 63.14	
48000	2445	1252	45.19	1272 48.41		1292 51.70		1311 55.04		1330 58.39		1348 61.85					
50000	2547	1303	50.79	1322 54.13		1341 57.57											
52000	2649	1353	56.84														

Volume O. Vel	STATIC PRESSURE ["W.G.]																		
	5"SP		5-1/2"SP		6"SP		6-1/2"SP		7"SP		8"SP		9"SP		10"SP		11"SP		
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	
16000	815	891	18.02	942 21.96		979 24.15		1027 28.73		1061 31.15		1124 39.96		1177 45.43		1229 51.10		1281 56.95	
18000	917	905	19.82	959 24.08		993 26.37		1045 31.28		1076 33.77		1137 38.89		1197 44.20		1253 55.01		1302 61.01	
20000	1019	925	21.87	983 26.50		1014 28.85		1069 34.14		1154 41.96		1204 49.19		1281 59.35		1327 65.54		1355 70.41	
22000	1121	952	24.20	1131 41.23		1157 44.20		1183 47.17		1214 51.07		1263 57.43		1310 63.90		1340 68.61			
24000	1223	1011	29.42	1070 34.68		1099 37.83													

Tip Speed = $12.83 \times RPM$  [ft/min]

Max. S.P. = $7.85 \times (RPM/1000)^2$  "W.G.

Max. Power = $46.5 \times (RPM/1000)^3$  BHP

Class I Max. Speed = 946 RPM

Class II Max. Speed = 1234 RPM

Outlet Area = 23.81 sq.ft.

Wheel Diameter = 49.00 in.

Size

**4900** SISW

DESIGN 8091 CENTRIFOIL FANS

Volume O. Vel	STATIC PRESSURE ["W.G.]																
	1/2"SP		1"SP		1-1/2"SP		2"SP		2-1/2"SP		3"SP		3-1/2"SP		4"SP		4-1/2"SP
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
8000	336	269	0.88	370 2.20		451 3.97		522 6.17		574 7.85		632 10.68					
10000	420	291	1.14														
12000	504	316	1.44														
14000	588	345	1.82														
16000	672	374	2.28														
18000	756	404	2.83														
20000	840	436	3.50														
22000	924	470	4.29														
24000	1008	505	5.23														
26000	1092	540	6.32														
28000	1176	576	7.58														
30000	1260	612	9.01														
32000	1344	648	10.62														
34000	1428	685	12.44														
36000	1512	722	14.48														
38000	1596	758	16.72														
40000	1680	796	19.21														
42000	1764	833	21.94														
44000	1848	870	24.94														
46000	1932	908	28.21														
48000	2016	945	31.77														
50000	2100	983	35.63														
54000	2268	1058	44.28														
58000	2436	1134	54.26														
62000	2604	1209	65.67														

Volume O. Vel	STATIC PRESSURE ["W.G.]																		
	5"SP		5-1/2"SP		6"SP		6-1/2"SP		7"SP		8"SP		9"SP		10"SP		11"SP		
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
22000	924	823	24.20	856	26.80	890	29.47	931 34.52		962 37.44		972 39.99		1029 46.21		1084 52.58		1145 62.53	
24000	1008	838	26.24	869	28.91	900	31.67	943 37.01		972 39.99		1040 49.15		1093 55.74		1155 66.16		1203 73.36	
26000	1092	857	28.55	886	31.30	915	34.11	960 39.79		987 42.84		1040 49.15		1093 55.74		1159 70.09		1201 78.56	
28000	1176	878	30.99	906	33.86	934	36.79	980 42.79		1005 45.92		1055 52.41		1105 59.18		1159 70.09		1201 78.56	
30000	1260	901	33.61	928	36.66	955	39.73	980 42.79		1005 45.92		1055 52.41		1105 59.18		1155 66.16		1203 73.36	
32000	1344	923	36.33	950	39.53	976	42.75	1002 46.00		1026 49.30		1074 55.93		1120 62.81		1167 69.98		1213 77.39	
34000	1428	947	39.21	973	42.56	999	45.95	1024 49.38		1048 52.87		1094 59.75		1139 66.81		1182 74.08		1226 81.59	
36000	1512	972	42.29	997	45.77	1022	49.32	1047 52.92		1070 56.51		1116 63.78		1159 70.09		1201 78.56		1222 83.33	
38000	1596	999	45.58	1023	49.19	1047	52.87	1070 56.63		1093 60.34		1138 67.97		1181 75.60		1222 83.33			
40000	1680	1025	49.10	1049	52.83	1072	56.64	1095 60.52		1117 64.37		1142 68.64		1184 76.83		1226 85.10			
42000	1764	1054	52.86	1077	56.71	1099	60.63	1121 64.63		1147 68.98		1168 73.18		1209 81.56					
44000	1848	1083	56.84	1105	60.85	1126	64.88	1147 68.98		1175 73.60		1195 77.91		1203 78.52		1222 82.89			
46000	1932	1111	61.01	1133	65.21	1154	69.40	1175 73.60		1195 77.91		1203 78.52		1222 82.89					
48000	2016	1140																	

Size

# 5425 SISW

## DESIGN 8091 CENTRIFOIL FANS

Tip Speed =  $14.20 \times RPM$  [ft/min]Max. S.P. =  $9.63 \times (RPM/1000)^2$  "W.G.Max. Power =  $77.3 \times (RPM/1000)^3$  BHP

Class I Max. Speed = 854 RPM

Class II Max. Speed = 1115 RPM

Outlet Area = 29.18 sq.ft.

Wheel Diameter = 54.25 in.

Volume O. Vel	STATIC PRESSURE ["W.G.]																
	1/2"SP		1"SP		1-1/2"SP		2"SP		2-1/2"SP		3"SP		3-1/2"SP		4"SP		4-1/2"SP
CFM	FPM	RPM	BHP	RPM	BHP												
10000	343	245	1.1														
12000	411	261	1.4	333	2.5												
14000	480	279	1.7	345	3.1	404	4.7										
16000	548	299	2.0	361	3.6	414	5.3	466	7.1								
18000	617	320	2.4	378	4.1	429	6.0	476	7.9	522	10.0						
20000	685	342	2.9	396	4.7	445	6.7	489	8.8	531	11.0	572	13.3	612	15.8		
22000	754	364	3.4	416	5.4	452	7.6	505	9.8	544	12.1	582	14.5	620	17.0	656	19.7
24000	822	388	4.1	437	6.2	480	8.5	521	10.8	560	13.3	595	15.8	630	18.4	664	21.1
26000	891	412	4.9	458	7.1	500	9.5	539	12.0	576	14.6	611	17.3	643	20.0	675	22.8
28000	960	438	5.7	480	8.0	521	10.6	557	13.2	593	16.0	627	18.8	659	21.7	689	24.6
30000	1028.1	463	6.7	502	9.1	542	11.8	577	14.5	611	17.4	644	20.4	675	23.4	705	26.5
32000	1096.6	489	7.8	525	10.3	563	13.1	598	16.0	630	19.0	661	22.1	691	25.3	721	28.5
34000	1165.2	516	9.1	549	11.6	585	14.5	618	17.6	650	20.7	679	24.0	709	27.3	737	30.7
36000	1233.7	542	10.5	574	13.1	607	16.1	640	19.3	670	22.6	699	25.9	727	29.4	754	32.9
38000	1302.3	569	12.0	599	14.8	629	17.8	661	21.1	691	24.5	719	28.0	746	31.7	772	35.3
40000	1370.8	596	13.7	624	16.6	653	19.7	683	23.1	712	26.6	740	30.3	766	34.0	791	37.8
44000	1507.9	650	17.6	676	20.7	701	24.0	728	27.5	755	31.3	782	35.3	807	39.2	831	43.3
48000	1645	704	22.2	728	25.6	751	29.0	775	32.7	800	36.7	825	40.9	850	45.2	873	49.5
52000	1782	759	27.6	781	31.2	803	34.9	824	38.8	847	42.9	870	47.2	893	51.7	915	56.4
56000	1919.1	814	33.9	835	37.7	855	41.7	875	45.8	895	50.0	916	54.5	937	59.1	958	64.0
60000	2056.2	870	41.1	889	45.2	908	49.4	926	53.7	945	58.1	964	62.7	983	67.5	1003	72.5
64000	2193.3	925	49.4	943	53.7	961	58.1	978	62.6	996	67.2	1013	72.0	1031	77.0	1049	82.1
68000	2330.4	981	58.6	998	63.2	1015	67.8	1031	72.6	1047	77.4	1063	82.4	1080	87.5	1097	92.8
72000	2467.4	1037	69.0	1053	73.8	1069	78.7	1084	83.7	1099	88.7						
76000	2604.5	1092	80.5	1108	85.6												

Volume O. Vel	STATIC PRESSURE ["W.G.]																
	5"SP		5-1/2"SP		6"SP		6-1/2"SP		7"SP		8"SP		9"SP		10"SP		11"SP
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
24000	822.48	732	27.0														
26000	891.02	739	28.8	770	31.9	800	35.1										
28000	959.56	748	30.7	778	33.9	807	37.2	836	40.6								
30000	1028.1	761	32.8	788	36.1	816	39.5	844	43.1	871	46.6	923	54.0				
32000	1096.6	775	35.1	801	38.5	827	42.0	853	45.5	879	49.2	930	56.8	980	54.7		
34000	1165.2	791	37.6	816	41.1	841	44.6	865	48.3	890	52.0	938	59.7	986	67.8	1033	76.1
36000	1233.7	807	40.1	832	43.8	856	47.5	880	51.3	903	55.1	948	62.9	994	71.1	1040	79.7
38000	1302.3	824	42.8	848	46.6	872	50.5	895	54.4	917	58.3	961	66.4	1004	74.7	1048	83.3
40000	1370.8	841	45.6	865	49.6	888	53.6	911	57.7	933	61.8	975	70.1	1017	78.5	1058	87.3
44000	1507.9	877	51.6	900	55.9	922	60.2	944	64.6	966	69.0	1007	77.9	1046	86.9	1084	96.0
48000	1645	917	58.4	938	62.9	959	67.4	979	72.1	1000	76.8	1040	86.3	1078	95.9		
52000	1782	958	65.8	978	70.6	998	75.4	1017	80.4	1036	85.2	1074	95.4	1112	105.7		
56000	1919	1000	74.0	1020	79.0	1039	84.2	1057	89.3	1075	94.5	1111	105.1				
60000	2056	1043	83.0	1062	88.4	1081	93.8	1098	99.2								
64000	2193	1086	92.9	1105	98.5												

Performance ratings shown are for fan without ducts.

Power ratings shown do not include belt drive loss.

Tip Speed = $15.71 \times RPM$  [ft/min]

Max. S.P. = $11.78 \times (RPM/1000)^2$  "W.G.

Max. Power = $127.9 \times (RPM/1000)^3$  BHP

Class I Max. Speed = 772 RPM

Class II Max. Speed = 1008 RPM

Outlet Area = 35.69 sq.ft.

Wheel Diameter = 60.00 in.

Size

**6000** SISW

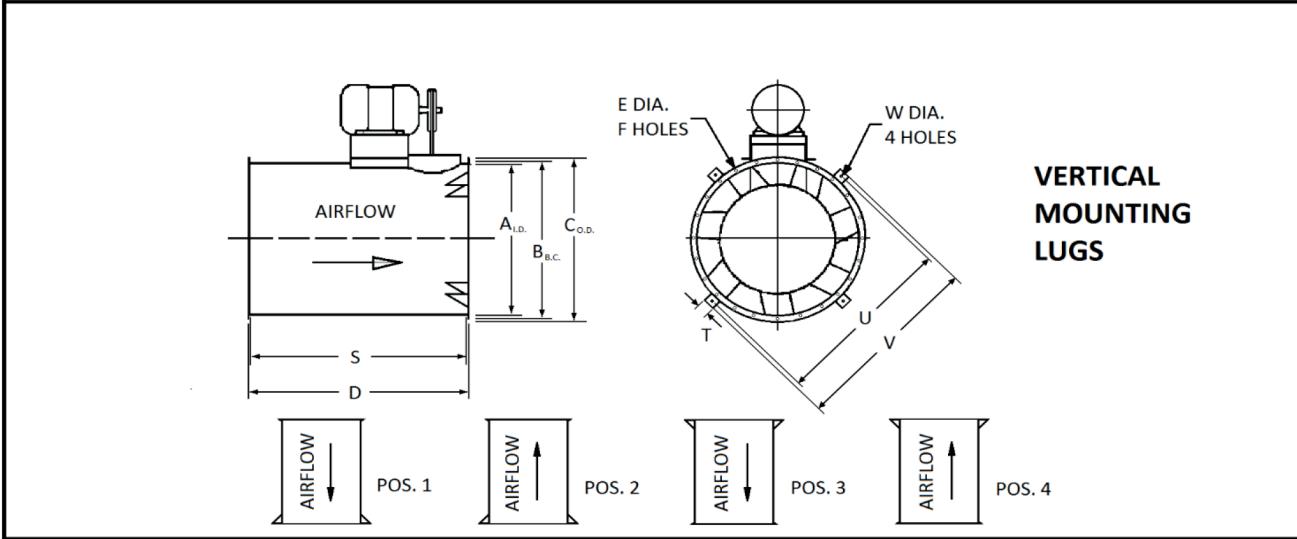
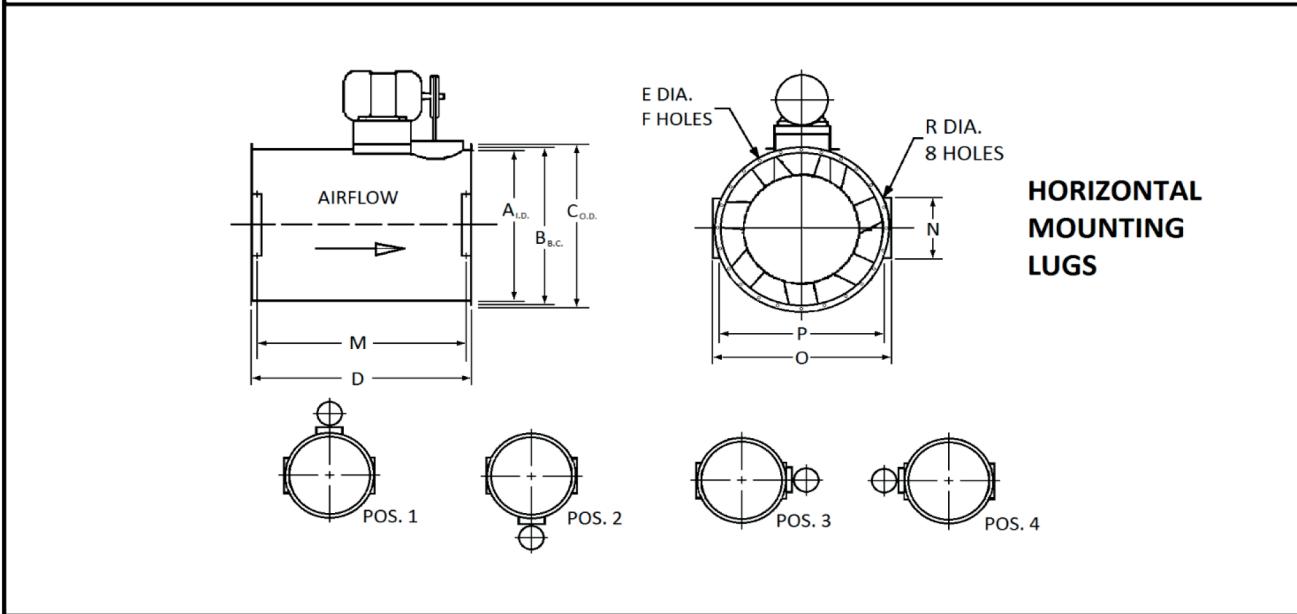
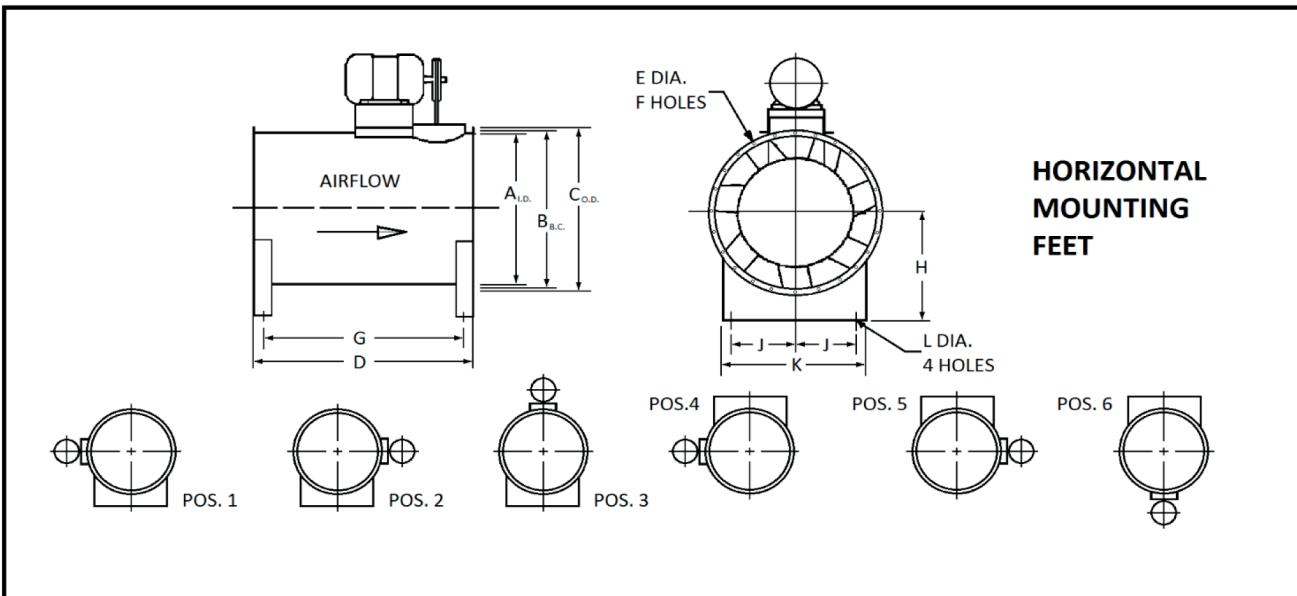
DESIGN 8091 CENTRIFOIL FANS

Volume O. Vel	STATIC PRESSURE ["W.G.]																
	1/2"SP		1"SP		1-1/2"SP		2"SP		2-1/2"SP		3"SP		3-1/2"SP		4"SP		4-1/2"SP
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
18000	504	259	2.2	317	4.0	368	6.0	423	8.9	471	12.2	516	16.0	558	20.2	592	23.4
20000	560	274	2.5	329	4.5	377	6.6	430	9.7	478	13.2	523	17.2				
22000	616	289	2.9	341	5.0	388	7.3	440	10.5	487	14.3	516	16.0	558	20.2	592	23.4
24000	672	305	3.4	355	5.6	400	8.0	451	11.5	487	14.3	523	17.2	558	20.2	592	23.4
26000	729	322	3.9	370	6.3	412	8.9										
28000	785	339	4.6	385	7.1	425	9.7	463	12.5	498	15.4	531	18.4	564	21.6	596	24.9
30000	841	357	5.2	400	7.9	439	10.7	476	13.6	510	16.7	542	19.8	572	23.0	603	26.4
32000	897	375	6.0	416	8.7	454	11.7	488	14.8	522	18.0	553	21.2	583	24.6	611	28.0
34000	953	393	6.9	432	9.7	469	12.8	502	16.0	534	19.3	565	22.8	594	26.3	622	29.8
36000	1009	412	7.9	448	10.7	484	14.0	517	17.3	547	20.8	577	24.4	606	28.1	633	31.7
38000	1065	431	8.9	465	11.9	500	15.2	532	18.7	561	22.3	590	26.1	618	29.9	645	33.7
40000	1121	451	10.1	483	13.1	516	16.6	547	20.2	576	24.0	603	27.8	631	31.8	657	35.8
44000	1233	490	12.8	518	16.0	548	19.6	578	23.5	606	27.6	632	31.7	657	35.9	682	40.2
48000	1345	529	15.9	555	19.4	582	23.2	610	27.3	637	31.6	662	36.0	686	40.5	709	45.1
52000	1457	569	19.7	593	23.3	618	27.3	643	31.5	668	36.1	693	40.8	716	45.6	738	50.4
56000	1569	610	23.9	632	27.8	645	32.0	677	36.4	701	41.1	724	46.1	747	51.1	768	56.3
60000	1681	650	28.8	671	33.0	691	37.3	713	41.9	734	46.8	756	51.9	778	57.2	799	62.7
64000	1793	691	34.4	710	38.8	730	43.4	749	48.1	769	53.1	790	58.4	810	64.0	831	69.6
68000	1905	731	40.7	750	45.3	768	50.1	786	55.0	805	60.2	824	65.7	843	71.4	863	77.3
72000	2017	772	47.7	790	52.6	807	57.6	824	62.8	841	68.1	859	73.7	877	79.6	895	85.7
76000	2129	813	55.5	830	60.7	846	65.9	862	71.3	879	76.8	895	82.6	912	88.6	929	94.8
80000	2242	854	64.2	870	69.6	886	75.1	901	80.7	916	86.4	932	92.4	948	98.5	964	104.8
84000	2354	895	73.7	911	79.3	926	85.1	940	90.9	955	97.0	969	103.0	984	109.3	999	115.9
88000	2466	936	84.2	951	90.0	966	96.1	980	102.2	993	108.3	1007	114.7				
92000	2578	978	95.6	992	101.7	1005	108.1										

Volume O. Vel	STATIC PRESSURE ["W.G.]																
	5"SP		5-1/2"SP		6"SP		6-1/2"SP		7"SP		8"SP		9"SP		10"SP		11"SP
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
32000	897	669	35.4	697	39.3	724	43.2	755	49.4	786	56.2	816	67.3	857	76.9	899	86.9
34000	953	676	37.3	703	41.2	729	45.3	760	51.8	791	58.7	838	74.0	877	83.9	915	94.2
36000	1009	684	39.4	710	43.4	735	47.5	767	54.2	791	58.7	838	67.8	862	102.4	936	113.4
38000	1065	694	41.6	719	45.7	743	49.9	786	56.9	798	61.4	843	70.7	888	80.4	971	113.4
40000	1121	706	44.0	729	48.2	752	52.5	798	61.4	843	70.7	888	80.4				
44000	123	730	49.1	752	53.5	774	58.1	795	62.7	816	67.3	857	76.9	899	86.9	940	97.4
48000	1345	754	54.5	776	59.3	798	64.1	818	69.0	838	74.0	877	83.9	915	94.2	953	105.0
52000	1457	781	60.3	802	65.5	822	70.7	842	75.8	862	81.0	900	91.7	936	102.4	971	113.4
56000	1569	809	66.7	828	72.1	848	77.5	867	83.0	887	88.6	923	99.8	959	111.1	992	122.6
60000	1681	838	73.7	857	79.3	876	85.0	894	90.8	912	96.6	948	108.5	983	120.4		
64000	1793	869	81.2	887	87.1	905	93.1	922	99.1	940	105.1	974	117.6	1008	130.2		
68000	1905	900	89.4	918	95.6	935	101.9	952	108.1	969	114.4	1001	127.3				
72000	2017	932	98.2	949	104.7	966	111.3	983	117.8	998	124.4						
76000	2129	964	107.8	981	114.5	997	121.3										
80000	2242	996	118.2														

Performance ratings shown are for fan without ducts.

Power ratings shown do not include belt drive loss.



## Dimensions in Inches

FAN SIZE	WHEEL DIA.	A	B	C	D	E	F	G	H	J	K	L
912	9.12	13	14-3/4	16-1/4	23	3/8	8	21-1/4	10-3/4	4-3/4	11-7/8	1/2
1225	12.25	17-1/4	19-1/8	20-1/4	29	3/8	8	27	14	5-3/4	15-1/2	1/2
1350	13.50	18-1/4	20-1/8	21-1/4	30	3/8	8	27-3/4	14-9/16	7	16-1/2	1/2
1500	15.00	20	21-7/8	23	31	3/8	8	28-3/4	15-13/16	7-3/4	18-1/4	1/2
1650	16.50	22-1/4	24-1/8	25-1/4	34	3/8	8	31-1/4	16-7/8	8-3/4	20-1/4	5/8
1825	18.25	24-1/2	26-3/8	27-1/2	36	3/8	16	33-1/4	18	9-1/2	22-1/4	5/8
2000	20.00	27	29	30	40	3/8	16	37-3/8	20-1/2	10-1/2	24-5/8	5/8
2225	22.25	30	32	33	42	3/8	24	38-1/4	21-15/16	11-1/2	27	5/8
2450	24.50	33	35	36	45	3/8	24	41-1/4	23-9/16	13	30	5/8
2700	27.00	36-3/8	38-3/8	39-3/8	49	3/8	24	45-1/4	26-1/4	14-1/2	33	5/8
3000	30.00	40-1/4	42-1/4	45-3/4	53	3/8	24	48-5/8	27-11/16	16-1/4	36-3/8	3/4
3300	33.00	44-1/2	46-1/2	50	59	3/8	24	54-5/8	29-7/16	18-1/4	40-3/8	3/4
3650	36.50	49	51	54-1/2	63	3/8	24	58-5/8	32-1/8	20	44-3/8	3/4
4025	40.25	54-1/4	56-1/4	59-3/4	68	3/8	24	63-5/8	34-3/4	22-1/2	49-1/8	3/4

FAN SIZE	M	N	P	Q	R	S	T	U	V	W	MAX MOTOR	
											CLASS I	CLASS II
912	21-1/8	6	14-3/4	18	9/16	22-3/4	2-7/8	18-3/4	20-1/2	9/16	143T	182T
1225	27-1/4	6	19-1/4	22-1/2	9/16	28-3/4	2-7/8	23	24-3/4	9/16	145T	184T
1350	28-1/4	6	20-1/4	23-1/2	9/16	29-3/4	2-7/8	24-1/8	25-7/8	9/16	145T	184T
1500	29-1/4	6	22-1/2	25-3/4	9/16	30-3/4	2-7/8	25-15/16	27-11/16	9/16	182T	213T
1650	31-3/4	8-3/4	23-3/4	27	9/16	33-3/4	2-7/8	28-3/16	29-15/16	9/16	182T	213T
1825	33-3/4	8-3/4	26-1/8	29-3/8	9/16	35-3/4	2-7/8	30-7/16	32-3/16	9/16	182T	215T
2000	37-3/4	8-3/4	28-3/4	32	9/16	39-3/4	2-7/8	32-7/8	34-5/8	9/16	184T	254T
2225	39-3/4	12-3/4	30-3/4	34-1/4	11/16	41-3/4	2-7/8	35-7/8	37-5/8	9/16	184T	254T
2450	42-3/4	12-3/4	34	37-1/2	11/16	44-3/4	2-7/8	38-7/8	40-5/8	9/16	213T	256T
2700	46-3/4	12-3/4	37-5/8	41-1/8	11/16	48-3/4	3	43-3/4	45-1/2	11/16	213T	256T
3000	50-1/8	16	40-3/4	45	11/16	52-3/4	3	47-13/16	49-9/16	11/16	215T	284T
3300	56-1/8	16	45-3/8	49-5/8	11/16	58-3/4	3	52-1/16	53-13/16	11/16	254T	286T
3650	60-1/8	18	49-1/4	53-1/2	11/16	62-3/4	3	56-9/16	58-5/16	11/16	254T	324T
4025	65-1/8	18	54-3/4	59	11/16	67-3/4	3	61-13/16	63-9/16	11/16	256T	325T



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