

# Series 8000 Centrifugal Clamshell Fans

---

Design 8096 • Class II



## Size 2450

### Design 8096 Centrifugal Clamshell

Outlet Area = 5.94 sq. ft. inside  
 Wheel Diameter = 24.50 inches  
 Maximum Speed, Class II = 2458 RPM  
 Maximum Frame Size = 256T/286U

Tip Speed, fpm = 6.41 x RPM  
 Max. Static Pressure = 1.98 x (RPM/1000)<sup>2</sup> "W.G.  
 Max. Power = 1.59 x (RPM/1000)<sup>3</sup> BHP

Volume O. Vel		STATIC PRESSURE ("W.G.)																		
		1/2		1		1-1/2		2		2-1/2		3		3-1/2		4		4-1/2		
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	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	1542	5.35	
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	1568	5.82	
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	1603	6.35	
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	1645	6.93	
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	1689	7.55	
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	1735	8.21	
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	1782	8.90	
8500	1431	1368	3.36	1427	4.01	1486	4.71	1549	5.46	1611	6.26	1670	7.09	1726	7.92	1779	8.77	1832	9.64	
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	1885	10.44	
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	1940	11.29	
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	1996	12.21	
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	2054	13.18	
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	2112	14.22	
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	2170	15.31	
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	2229	16.49	
12500	2105	1965	9.64	2005	10.55	2046	11.48	2085	12.43	2124	13.41	2164	14.43	2205	15.49	2247	16.60	2290	17.74	
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			
13500	2273	2115	11.98	2153	12.96	2191	13.95	2227	14.96	2263	16.01	2300	17.08							
14000	2357	2191	13.28	2227	14.29	2264	15.32	2299	16.37											

Volume O. Vel		STATIC PRESSURE ("W.G.)																		
		5		5-1/2		6		6-1/2		7		8		9		10		11		
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	
5000	842	1614	6.00																	
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	1876	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	10.65	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					
9000	1515	1935	11.36	1984	12.29	2033	13.25	2081	14.20	2128	15.16	2220	17.13	2305	19.08					
9500	1599	1988	12.25	2035	13.22	2082	14.21	2128	15.20	2174	16.19	2264	18.24							
10000	1684	2043	13.19	2088	14.20	2133	15.22	2178	16.25	2221	17.28	2309	19.41							
10500	1768	2099	14.21	2143	15.24	2187	16.30	2230	17.37	2272	18.43									
11000	1852	2157	15.29	2200	16.35	2242	17.44	2283	18.55	2324	19.65									
11500	1936	2215	16.42	2257	17.54	2298	18.65													
12000	2020	2273	17.62	2315	18.78															

Power ratings shown do not include belt drive loss.  
 The performance shown is for fans without ducts.

# PERFORMANCE DATA

# 2700

## Size 2700

### Design 8096 Centrifugal Clamshell

Outlet Area = 7.21 sq. ft. inside  
 Wheel Diameter = 27.00 inches  
 Maximum Speed, Class II = 2230 RPM  
 Maximum Frame Size = 286T/326U

Tip Speed, fpm = 7.07 x RPM  
 Max. Static Pressure = 2.41 x (RPM/1000)<sup>2</sup> "W.G.  
 Max. Power = 2.58 x (RPM/1000)<sup>3</sup> BHP

Volume O. Vel.		STATIC PRESSURE ("W.G.)																			
		1/2		1		1-1/2		2		2-1/2		3		3-1/2		4		4-1/2			
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	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	762	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	1397	6.43		
6500	901	833	1.32	923	1.91	1005	2.55	1081	3.22	1154	3.92	1223	4.63	1288	5.36	1351	6.10	1414	6.89		
7000	970	884	1.56	967	2.17	1047	2.85	1119	3.56	1189	4.29	1257	5.05	1320	5.81	1380	6.60	1439	7.40		
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	1468	7.95		
8000	1109	990	2.14	1060	2.80	1133	3.54	1201	4.32	1264	5.13	1326	5.96	1387	6.81	1444	7.67	1500	8.54		
8500	1178	1043	2.49	1109	3.17	1177	3.93	1244	4.75	1305	5.59	1364	6.46	1422	7.35	1478	8.26	1533	9.17		
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	1567	9.83		
9500	1317	1151	3.29	1209	4.03	1269	4.84	1331	5.72	1390	6.64	1445	7.57	1498	8.53	1550	9.51	1602	10.51		
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	1638	11.23		
11000	1525	1316	4.83	1366	5.66	1416	6.54	1468	7.49	1522	8.49	1574	9.55	1623	10.61	1670	11.70	1716	12.80		
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	1799	14.56		
13000	1802	1538	7.60	1581	8.56	1623	9.55	1665	10.58	1708	11.67	1753	12.82	1798	14.02	1842	15.26	1885	16.51		
14000	1941	1650	9.33	1690	10.35	1729	11.41	1768	12.49	1807	13.63	1848	14.82	1889	16.06	1931	17.35	1972	18.68		
15000	2079	1762	11.32	1800	12.41	1836	13.53	1873	14.68	1909	15.86	1946	17.09	1984	18.37	2022	19.70	2061	21.08		
16000	2218	1875	13.58	1910	14.74	1945	15.92	1978	17.12	2012	18.36	2047	19.64	2081	20.97	2117	22.33	2153	23.75		
17000	2357	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	2495	2101	18.98	2132	20.28	2163	21.60	2194	22.94	2224	24.29										
19000	2634	2214	22.17																		

Volume O. Vel.		STATIC PRESSURE ("W.G.)																			
		5		5-1/2		6		6-1/2		7		8		9		10		11			
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP		
6000	832	1463	7.21																		
6500	901	1478	7.71	1540	8.55	1600	9.40														
7000	970	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	1109	1553	9.43	1604	10.33	1655	11.25	1707	12.21	1759	13.20	1860	15.20	1958	17.29						
8500	1178	1585	10.10	1635	11.03	1684	11.99	1732	12.96	1780	13.95	1877	16.02	1972	18.16	2065	20.37				
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	2168	23.66		
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	2182	24.74		
10000	1386	1687	12.28	1735	13.35	1781	14.42	1826	15.50	1869	16.59	1954	18.80	2036	21.08	2118	23.42	2200	25.86		
11000	1525	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	1802	1926	17.78	1966	19.06	2006	20.36	2043	21.65	2080	22.98	2155	25.66	2229	28.41						
14000	1941	2012	20.02	2051	21.39	2088	22.74	2125	24.12	2161	25.53										
15000	2079	2100	22.50	2138	23.92	2174	25.35	2210	26.82												
16000	2218	2189	25.22	2226	26.71																

Power ratings shown do not include belt drive loss.  
 The performance shown is for fans without ducts.

## Size 3000

### Design 8096 Centrifugal Clamshell

Outlet Area = 8.91 sq. ft. inside

Wheel Diameter = 30.00 inches

Maximum Speed, Class II = 2007 RPM

Maximum Frame Size = 286T/326U

Tip Speed, fpm = 7.85 x RPM

Max. Static Pressure = 2.98 x (RPM/1000)<sup>2</sup> "W.G.

Max. Power = 4.37 x (RPM/1000)<sup>3</sup> BHP

Volume Q. Vel		STATIC PRESSURE ("W.G.)																	
		1/2		1		1-1/2		2		2-1/2		3		3-1/2		4		4-1/2	
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
4000	449	486	0.50	608	0.94	721	1.45												
4500	505	514	0.58	630	1.07	732	1.60												
5000	561	545	0.68	654	1.21	749	1.77	841	2.38										
5500	618	576	0.79	679	1.35	771	1.95	855	2.59	937	3.28								
6000	674	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	1249	7.58
7500	842	711	1.41	797	2.11	873	2.87	946	3.66	1014	4.47	1077	5.31	1138	6.17	1199	7.08	1260	8.03
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	1272	8.48
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	1289	8.98
9000	1011	823	2.12	894	2.89	964	3.76	1028	4.65	1089	5.58	1148	6.54	1205	7.52	1258	8.51	1309	9.52
9500	1067	861	2.41	928	3.20	996	4.10	1058	5.03	1116	6.00	1174	7.00	1229	8.02	1282	9.06	1332	10.10
10000	1123	900	2.72	963	3.54	1028	4.47	1089	5.44	1145	6.44	1200	7.48	1254	8.53	1306	9.62	1356	10.70
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	1404	11.98
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	1455	13.35
13000	1460	1138	5.31	1185	6.30	1232	7.35	1282	8.50	1332	9.72	1380	10.97	1425	12.25	1469	13.55	1511	14.87
14000	1572	1218	6.47	1262	7.52	1306	8.63	1351	9.81	1397	11.08	1443	12.40	1487	13.75	1529	15.12	1570	16.51
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	1631	18.31
16000	1797	1380	9.30	1419	10.48	1457	11.71	1495	12.98	1534	14.32	1574	15.74	1615	17.22	1655	18.74	1693	20.28
17000	1909	1462	11.00	1498	12.24	1534	13.53	1570	14.86	1606	16.24	1643	17.70	1681	19.23	1719	20.80	1757	22.42
18000	2021	1544	12.90	1578	14.21	1612	15.56	1646	16.95	1679	18.38	1714	19.88	1749	21.45	1785	23.07	1821	24.74
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	1887	27.28
20000	2246	1708	17.36	1739	18.81	1770	20.29	1800	21.79	1830	23.33	1860	24.93	1891	26.57				
21000	2358	1790	19.94	1820	21.45	1849	23.00	1878	24.58										
22000	2470	1872	22.77	1901	24.35														

Volume Q. Vel		STATIC PRESSURE ("W.G.)																	
		5		5-1/2		6		6-1/2		7		8		9		10		11	
CFM	FPM	RPM	BHP	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	1011	1360	10.56	1411	11.63	1462	12.75	1512	13.89	1562	15.07								
9500	1067	1381	11.16	1429	12.26	1477	13.39	1525	14.56	1573	15.75	1666	18.19						
10000	1123	1403	11.80	1449	12.93	1495	14.08	1540	15.26	1586	16.46	1677	18.98	1765	21.56				
10500	1179	1427	12.47	1472	13.63	1516	14.81	1559	16.01	1602	17.23	1689	19.79	1775	22.43	1859	25.15		
11000	1235	1451	13.17	1495	14.36	1539	15.58	1581	16.82	1622	18.05	1705	20.64	1787	23.33	1869	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	1460	1553	16.21	1594	17.58	1635	18.96	1675	20.34	1714	21.74	1789	24.58	1860	27.47				
14000	1572	1609	17.92	1648	19.35	1687	20.81	1725	22.29	1763	23.79	1836	26.78						
15000	1684	1669	19.80	1706	21.30	1743	22.84	1779	24.37	1815	25.92	1886	29.11						
16000	1797	1730	21.84	1766	23.42	1801	25.02	1835	26.62	1870	28.25								
17000	1909	1793	24.05	1828	25.71	1862	27.38	1895	29.04										
18000	2021	1856	26.44	1891	28.17														

Power ratings shown do not include belt drive loss.  
The performance shown is for fans without ducts.

# PERFORMANCE DATA

# 3300

## Size 3300

### Design 8096 Centrifugal Clamshell

Outlet Area = 10.80 sq. ft. inside  
 Wheel Diameter = 33.00 inches  
 Maximum Speed, Class II = 1829 RPM  
 Maximum Frame Size = 324T/364U

Tip Speed, fpm = 8.64 x RPM  
 Max. Static Pressure = 3.56 x (RPM/1000)<sup>2</sup> "W.G.  
 Max. Power = 6.72 x (RPM/1000)<sup>3</sup> BHP

Volume O. Vel		STATIC PRESSURE ("W.G.)																	
		1/2		1		1-1/2		2		2-1/2		3		3-1/2		4		4-1/2	
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
4000	370	411	0.46	537	0.93														
5000	463	449	0.60	559	1.13	659	1.73												
6000	556	494	0.78	594	1.39	681	2.04	765	2.75										
7000	648	541	1.00	632	1.68	715	2.41	788	3.17	860	3.98	930	4.85						
8000	741	591	1.28	676	2.02	751	2.82	822	3.66	886	4.52	949	5.44	1012	6.40	1073	7.40		
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	1146	9.26
10000	926	698	2.03	770	2.89	836	3.83	898	4.81	957	5.83	1014	6.89	1066	7.94	1117	9.04	1167	10.17
11000	1018	755	2.52	819	3.42	883	4.44	941	5.49	996	6.58	1050	7.71	1101	8.85	1150	10.03	1197	11.20
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	1231	12.33
13000	1204	872	3.78	924	4.77	979	5.88	1034	7.08	1083	8.31	1131	9.58	1177	10.87	1223	12.19	1268	13.55
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	1305	14.82
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	1345	16.21
16000	1481	1051	6.45	1093	7.61	1136	8.85	1180	10.19	1226	11.63	1269	13.10	1310	14.61	1349	16.14	1387	17.69
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	1432	19.29
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	1478	21.02
19000	1769	1233	10.25	1269	11.60	1304	13.00	1340	14.46	1377	16.01	1415	17.66	1453	19.37	1490	21.12	1525	22.89
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	1572	24.87
21000	1944	1356	13.51	1388	14.99	1420	16.50	1452	18.07	1484	19.71	1518	21.42	1552	23.21	1586	25.07	1620	26.98
22000	2037	1417	15.39	1448	16.93	1479	18.51	1509	20.14	1540	21.82	1571	23.58	1603	25.40	1636	27.30	1668	29.25
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	1718	31.72
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	1768	34.32
25000	2315	1602	22.09	1630	23.82	1657	25.59	1684	27.38	1711	29.23	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						
27000	2500	1726	27.51	1752	29.37	1777	31.28	1802	33.21										
28000	2592	1788	30.53																

Volume O. Vel		STATIC PRESSURE ("W.G.)																	
		5		5-1/2		6		6-1/2		7		8		9		10		11	
CFM	FPM	RPM	BHP	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												
11000	1018	1242	12.41	1288	13.67	1334	14.97	1380	16.31	1424	17.66								
12000	1111	1275	13.60	1317	14.90	1359	16.24	1401	17.61	1443	19.02	1525	21.91	1606	24.90				
13000	1204	1310	14.91	1351	16.28	1391	17.66	1430	19.06	1468	20.51	1545	23.48	1623	26.62	1698	29.83		
14000	1296	1347	16.26	1387	17.72	1426	19.19	1464	20.69	1500	22.17	1572	25.23	1643	28.39	1715	31.70	1785	35.10
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	1805	37.27
16000	1481	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	28.60	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										
23000	2130	1749	33.76	1779	35.84	1809	37.98												
24000	2222	1798	36.44																

Power ratings shown do not include belt drive loss.  
 The performance shown is for fans without ducts.

## Size 3650 Design 8096 Centrifugal Clamshell

Outlet Area = 13.21 sq. ft. inside  
 Wheel Diameter = 36.50 inches  
 Maximum Speed, Class II = 1654 RPM  
 Maximum Frame Size = 326T/365U

Tip Speed, fpm = 9.56 x RPM  
 Max. Static Pressure = 4.39 x (RPM/1000)<sup>2</sup> "W.G.  
 Max. Power = 11.1 x (RPM/1000)<sup>3</sup> BHP

Volume O. Vel CFM FPM		STATIC PRESSURE ("W.G.)																	
		1/2		1		1-1/2		2		2-1/2		3		3-1/2		4		4-1/2	
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
4000	303	351	0.45																
5000	378	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	1036	11.32
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	1051	12.22
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	1071	13.22
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	1095	14.30
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	1122	15.48
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	1149	16.68
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	1176	17.96
18000	1362	880	6.33	922	7.66	965	9.11	1009	10.69	1052	12.35	1093	14.04	1131	15.77	1168	17.53	1205	19.32
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	1236	20.76
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	1268	22.30
21000	1589	1014	9.52	1050	11.02	1085	12.62	1122	14.31	1160	16.13	1198	18.03	1234	19.97	1268	21.94	1301	23.94
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	1336	25.68
24000	1816	1149	13.69	1181	15.39	1211	17.15	1243	18.98	1274	20.90	1307	22.94	1340	25.06	1373	27.24	1405	29.46
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	1476	33.70
28000	2119	1331	21.05	1358	23.01	1385	25.01	1411	27.05	1437	29.15	1464	31.34	1492	33.62	1520	35.99	1548	38.45
30000	2270	1422	25.58	1447	27.66	1473	29.79	1497	31.95	1522	34.17	1546	36.46	1571	38.80	1597	41.24	1623	43.78
32000	2422	1513	30.73	1537	32.94	1561	35.21	1584	37.51	1607	39.82	1630	42.20						
34000	2573	1605	36.56	1627	38.90	1650	41.31												

Volume O. Vel CFM FPM		STATIC PRESSURE ("W.G.)																	
		5		5-1/2		6		6-1/2		7		8		9		10		11	
CFM	FPM	RPM	BHP	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	32.71	1537	36.68	1602	40.71
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	1613	42.69
18000	1362	1242	21.15	1278	23.00	1312	24.88	1346	26.78	1379	28.66	1442	32.51	1503	36.45	1564	40.54	1626	44.78
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	1642	47.03
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	1589	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	1816	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	2119	1576	40.95	1604	43.49	1631	46.08												

Power ratings shown do not include belt drive loss.  
 The performance shown is for fans without ducts.

# PERFORMANCE DATA

# 4025

## Size 4025

### Design 8096 Centrifugal Clamshell

Outlet Area = 16.07 sq. ft. inside

Wheel Diameter = 40.25 inches

Maximum Speed, Class II = 1500 RPM

Maximum Frame Size = 326T/365U

Tip Speed, fpm = 10.54 x RPM

Max. Static Pressure = 5.34 x (RPM/1000)<sup>2</sup> "W.G.

Max. Power = 18.1 x (RPM/1000)<sup>3</sup> BHP

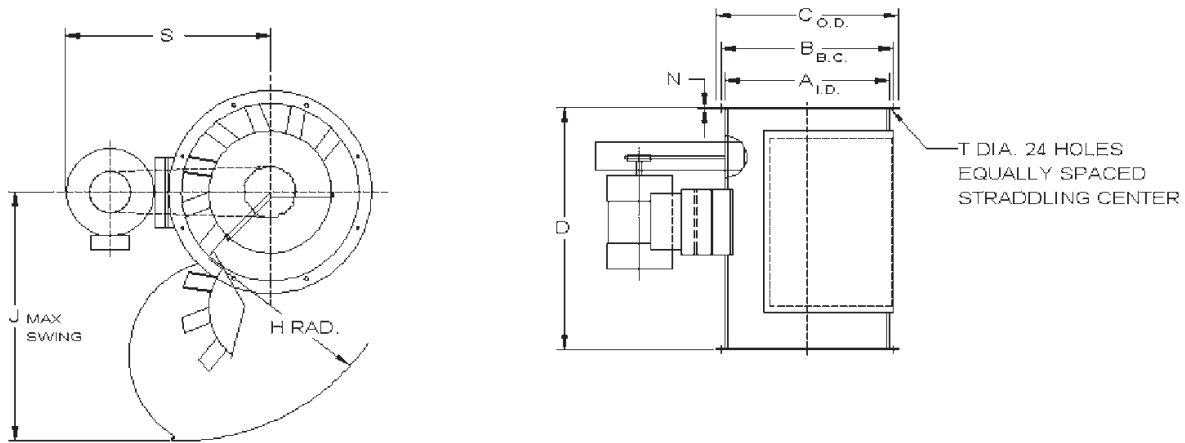
Volume Q. Vel		STATIC PRESSURE ("W.G.)																	
		1/2		1		1-1/2		2		2-1/2		3		3-1/2		4		4-1/2	
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
7000	436	359	0.83	452	1.59														
8000	498	382	0.99	469	1.82	546	2.74												
9000	560	407	1.18	488	2.09	559	3.06	628	4.12										
10000	622	433	1.39	509	2.37	578	3.42	640	4.53	701	5.72								
11000	685	459	1.64	532	2.69	598	3.82	657	4.99	712	6.23	768	7.55	822	8.94				
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	936	13.47
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	946	14.31
15000	934	576	3.07	635	4.36	689	5.76	739	7.24	787	8.77	833	10.34	876	11.92	918	13.56	959	15.26
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	975	16.26
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	993	17.36
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	1012	18.52
19000	1183	704	5.37	748	6.84	794	8.48	839	10.24	880	12.04	919	13.90	958	15.80	996	17.77	1032	19.73
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	1053	20.98
21000	1307	769	6.92	808	8.49	849	10.21	891	12.09	931	14.05	968	16.03	1004	18.08	1039	20.17	1074	22.29
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	1095	23.65
23000	1431	835	8.76	871	10.44	907	12.26	945	14.22	983	16.30	1020	18.46	1054	20.63	1086	22.84	1118	25.09
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	1142	26.62
25000	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	1192	29.90
26000	1743	1002	14.86	1032	16.85	1061	18.91	1091	21.06	1121	23.38	1153	25.82	1184	28.35	1214	30.93	1243	33.54
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	1296	37.52
32000	1992	1137	21.50	1163	23.74	1189	26.04	1214	28.42	1240	30.89	1267	33.46	1294	36.16	1321	38.97	1348	41.86
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	1402	46.63
36000	2241	1273	29.96	1296	32.46	1320	35.01	1342	37.61	1365	40.28	1387	43.05						
38000	2365	1341	34.93	1363	37.56	1385	40.24												

Volume Q. Vel		STATIC PRESSURE ("W.G.)																	
		5		5-1/2		6		6-1/2		7		8		9		10		11	
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
14000	871	989	16.03	1031	17.78														
15000	934	1000	17.02	1040	18.83	1080	20.71	1119	22.59										
16000	996	1013	18.06	1051	19.91	1089	21.82	1127	23.78	1164	25.78								
17000	1058	1029	19.20	1065	21.09	1101	23.04	1138	25.05	1174	27.13	1243	31.32						
18000	1120	1048	20.43	1083	22.37	1117	24.36	1151	26.42	1184	28.49	1252	32.83	1318	37.29				
19000	1183	1068	21.72	1101	23.73	1134	25.79	1166	27.86	1198	29.97	1263	34.41	1327	38.98	1389	43.70		
20000	1245	1087	23.06	1121	25.16	1153	27.29	1184	29.41	1215	31.57	1276	36.08	1337	40.73	1398	45.56		
21000	1307	1108	24.44	1141	26.63	1173	28.84	1203	31.05	1233	33.26	1292	37.87	1350	42.59				
22000	1369	1128	25.88	1161	28.15	1192	30.44	1223	32.76	1252	35.04	1310	39.77	1365	44.56				
23000	1431	1150	27.39	1182	29.73	1213	32.10	1243	34.50	1272	36.89	1328	41.73	1382	46.64				
24000	1494	1173	28.98	1203	31.38	1233	33.82	1263	36.29	1292	38.80	1348	43.78	1400	48.83				
26000	1618	1221	32.41	1249	34.95	1278	37.51	1305	40.10	1333	42.74	1387	48.08						
28000	1743	1271	36.18	1298	38.83	1325	41.52	1351	44.27	1377	47.06								
30000	1867	1323	40.29	1349	43.08	1375	45.93	1400	48.84										
32000	1992	1375	44.77	1401	47.72														

Power ratings shown do not include belt drive loss.  
The performance shown is for fans without ducts.

# DIMENSIONS

## DESIGN 8096 CENTRIFOIL CLAMSHELL FOR VERTICAL MOUNTING ARRANGEMENT 9



Size	Shaft Dia.	Keyway Size	A	B	C	D	H	J	N	S	T
2450	1-11/16	3/8 x 3/16	33	35	37-1/4	52	31-3/4	44	1/4	41-1/2	7/16
2700	1-11/16	3/8 x 3/16	36-3/8	38-3/8	41-5/8	56	35	48-1/2	3/8	43-1/4	7/16
3000	1-11/16	3/8 x 3/16	40-1/4	42-1/2	45-3/8	60	38-3/4	53-3/4	3/8	46-3/4	7/16
3300	1-15/16	1/2 x 1/4	44-1/2	47	50	66	42-3/4	59-1/4	3/8	49	7/16
3650	1-15/16	1/2 x 1/4	49	51-1/2	54-1/2	70	47-1/4	65-1/2	3/8	53-1/2	9/16
4025	2-3/16	1/2 x 1/4	54-1/4	56-3/4	59-3/4	75	52	72	3/8	56-1/4	9/16

Northern Blower Inc.  
901 Regent Avenue West  
Winnipeg, Manitoba  
Canada R2C 2Z8  
☎ 204.222.4216  
✉ 204.222.7601  
✉ info@northernblower.com  
🌐 www.northernblower.com