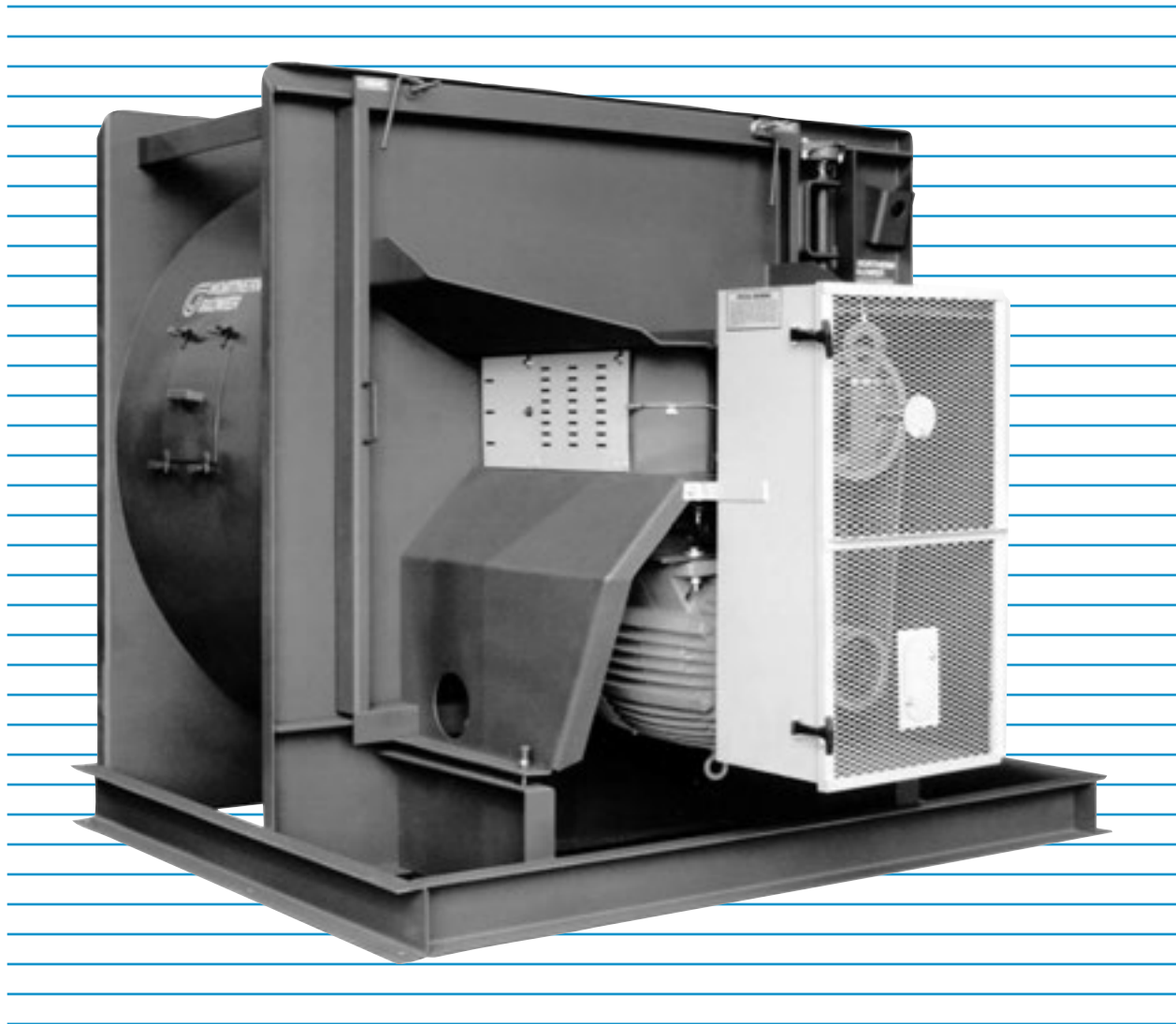


Series 8500 Centrifugal Swingout Fans

Design 8510 Centrifugal Airfoil
Design 8520 Centrifugal BI

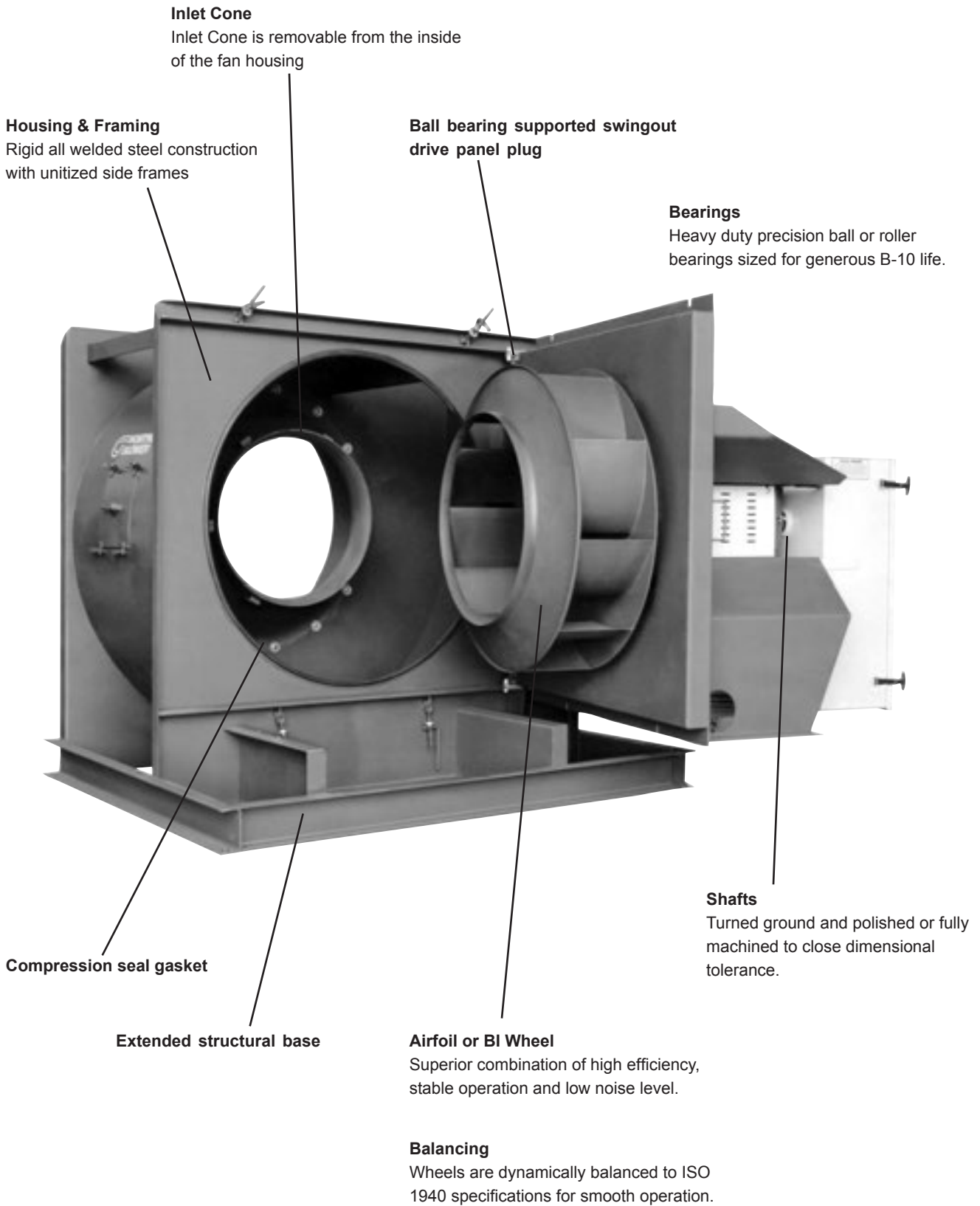


Series 8500 Centrifugal Swingout Fans

The Series 8500 Centrifugal Swingout Fans are ideal for applications where fast accessibility to the interior of the fan for inspection, cleaning and service is a prime requisite. Series 8500 Fans are aerodynamically identical to the high efficiency Series 5000 standard configuration fan.

Automotive Spray Booths

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Shafts and Bearings

Shafts

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

Bearings

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

Swingout Door

Rugged construction swingout door with heavy duty, ball bearing supported swing assembly. Allows the entire door assembly (wheel, shaft, motor and drive) to swing out permitting access to the interior of the housing and wheel for inspection and cleaning. Swingout door is pivoted on the right or left side, as viewed from the drive side. Quick clamp captive latches secure the swingout door assembly to the fan housing. Special plug door compression gasket ensures tight seal. A built in extended structural base keeps the fan stable when the drive train plug is opened for servicing.

A caster supported swingout door system is standard on fan sizes 4450-5425 with motor frame 404 and larger. Fan sizes 6000 and 6600 have a heavy duty chair base swingout door supported by casters.

Classes of Construction

Class II construction in CW and CCW upblast and bottom horizontal. Class IIX in 4450 to 5425.

Capacities

2400 CFM to 110000 CFM

Pressures

Up to 10" S.P.

Temperatures

Operating Temperatures to 160°F

See Table 1, Page 5

Design 8510

Centrifugal Airfoil Wheel

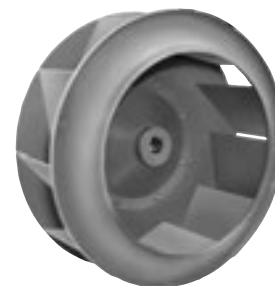
Wheels are airfoil design, continuously welded, with standard blade weep holes.



Design 8520

Centrifugal BI Wheel

Continuously welded BI wheels with heavy gauge single thickness backward inclined blades.



Flanged Inlet

Round type punched flange to facilitate the bolting of duct connections.



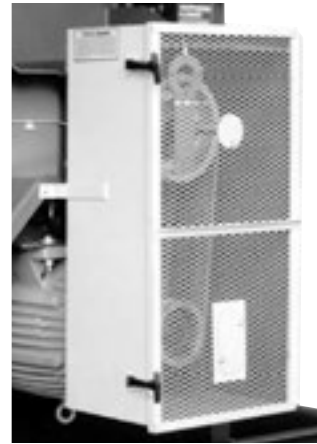
Shaft and Bearing Guard

The shaft and bearing guard encloses the inboard bearing and the shaft from the fan drive side sheet to the outboard bearing. The guard includes accessible grease fittings for both bearings.



Belt Guard

Belt guard is totally enclosed shoe box style with angle frame cover and mesh steel face. Cover is hinged on top and held closed with quick release latches.



Jackscrew Motor Base

All steel construction with threaded bolts and locking nuts for belt tension adjustment. Available in top motor position only.



Tilt Tension Motor Base

Pivoted motor base for automatic belt tension and belt take-up. Available in bottom motor position only.



Additional Accessories

- Drain Openings
- Extended Grease Lines
- Spark Resistant Construction
- Motor and Drive Mounting
- Percent Width
- Special metals
- 2-Bolt Pivot Motor Base
- Inlet Screen
- Flush Access Door

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

Fan Selection at Elevated Temperature and Altitude

Fan Selection Tables

Ratings shown in the Performance Tables are based on standard air density of .075 pounds per cubic foot at the fan inlet. Standard air is dry air at 70°F and 29.92" Hg barometric pressure. When air density varies from standard, due to temperature or altitude changes, the Air Density Correction Factor from Table 1 is applied. Refer to the sample selection that follows.

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

Table 1

Air Density Correction Factor							
Air Temp °F	Elevation (Feet) above Sea Level						
	0	500	1000	2000	3000	4000	5000
-40°	.79	.81	.82	.85	.88	.92	.95
0°	.87	.88	.90	.93	.97	1.00	1.04
40°	.94	.96	.98	1.01	1.05	1.09	1.13
70°	1.00	1.02	1.04	1.08	1.12	1.16	1.20
100°	1.06	1.08	1.10	1.14	1.18	1.22	1.27
140°	1.13	1.15	1.17	1.22	1.26	1.31	1.36
160°	1.17	1.19	1.21	1.26	1.31	1.36	1.41

Sample Selection of a Belt Drive Fan

Select a fan for the operating conditions of 9000 CFM at 5" SP, 70° F and 5000 feet elevation.

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

$$\begin{aligned} \text{Equivalent SP} &= \text{Operating SP} \times \text{Air Density Corr. Factor} \\ &= 5" \times 1.20 = 6" \end{aligned}$$

- 2) From the Performance Table, select the fan size. For 9000 CFM at 6" SP an efficient selection would be a size 3000 fan. Interpolating from the Performance Table given on page 7, the selection fan performance is 1348 RPM and 10.19 BHP at standard temperature and pressure.

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

$$\begin{aligned} \text{Operating BHP} &= \frac{\text{Equivalent BHP}}{\text{Air Density Correction Factor}} \\ &= \frac{10.19}{1.20} = 8.49 \text{ BHP} \end{aligned}$$

Size

2225 sisw

Design 8510 Centrifugal AF Swingout Fans

Wheel Diameter = 22.25 in.
 Outlet Area = 2.85 sq. ft. inside
 Maximum BHP = 1.07 x (RPM/1000)³
 Tip Speed, fpm = 5.83 x RPM
 Class II RPM = 2419

Volume O.Vel		1"SP		2"SP		3"SP		4"SP		5"SP		6"SP		7"SP		8"SP		9"SP		10"SP	
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
2400	845	778	0.49																		
2600	915	801	0.54																		
2800	986	824	0.59	1038	1.12																
3000	1056	850	0.64	1057	1.20																
3200	1126	876	0.71	1078	1.29																
3400	1197	907	0.77	1100	1.38	1268	2.04														
3600	1267	937	0.85	1123	1.48	1286	2.16														
3800	1338	968	0.93	1146	1.58	1307	2.29														
4000	1408	1000	1.02	1170	1.68	1328	2.42	1470	3.20												
4400	1549	1065	1.21	1221	1.91	1373	2.70	1509	3.53	1637	4.40										
4800	1690	1131	1.43	1279	2.18	1420	3.01	1553	3.89	1674	4.80	1791	5.75								
5200	1830	1199	1.68	1341	2.49	1470	3.34	1598	4.28	1717	5.24	1827	6.24	1934	7.26						
5600	1971	1268	1.97	1404	2.83	1524	3.72	1646	4.69	1761	5.70	1869	6.75	1971	7.83	2070	8.93				
6000	2112	1338	2.28	1469	3.20	1583	4.14	1696	5.14	1808	6.20	1914	7.31	2013	8.43	2107	9.58	2199	10.75		
6500	2288	1426	2.74	1551	3.72	1661	4.73	1764	5.76	1868	6.87	1970	8.03	2068	9.23	2160	10.44	2247	11.66	2332	12.91
7000	2464	1516	3.25	1634	4.30	1741	5.39	1838	6.47	1933	7.61	2031	8.83	2125	10.08	2215	11.36	2302	12.67	2384	13.98
7500	2640	1607	3.83	1719	4.95	1822	6.10	1916	7.27	2005	8.44	2094	9.68	2185	11.00	2272	12.33	2356	13.70		
8000	2816	1699	4.49	1806	5.68	1904	6.89	1996	8.13	2081	9.37	2163	10.63	2247	11.99	2332	13.39	2414	14.80		
8500	2992	1792	5.23	1893	6.48	1988	7.76	2077	9.07	2159	10.39	2237	11.70	2315	13.06	2394	14.51				
9000	3168	1885	6.04	1982	7.37	2073	8.71	2159	10.09	2239	11.48	2315	12.86	2388	14.27						
9500	3344	1978	6.95	2071	8.33	2158	9.75	2241	11.19	2320	12.65	2394	14.13								
10000	3520	2073	7.95	2161	9.40	2245	10.89	2325	12.38	2402	13.92										
10500	3696	2168	9.06	2252	10.57	2333	12.11	2410	13.69												
11000	3872	2263	10.26	2343	11.83																
11500	4048	2358	11.57																		

Maximum Motor Horsepower = 15 Maximum TEFC Motor Frame Size 284

Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream. Performance shown is for installation type B-Free inlet, Ducted outlet.

Size

2450 sisw

Design 8510 Centrifugal AF Swingout Fans

Wheel Diameter = 24.50 in.
 Outlet Area = 3.45 sq. ft. inside
 Maximum BHP = 1.59 x (RPM/1000)³
 Tip Speed, fpm = 6.41 x RPM
 Class II RPM = 2117

Volume O.Vel		1"SP		2"SP		3"SP		4"SP		5"SP		6"SP		7"SP		8"SP		9"SP		10"SP	
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
3000	870	726	0.59																		
3200	928	743	0.64	933	1.20																
3400	986	761	0.69	949	1.28																
3600	1044	780	0.74	968	1.38																
3800	1102	799	0.80	988	1.47																
4000	1160	820	0.86	1005	1.56	1148	2.25														
4500	1305	874	1.05	1048	1.79	1194	2.59	1316	3.37												
5000	1450	932	1.26	1093	2.04	1239	2.93	1359	3.80	1468	4.68										
5500	1595	992	1.50	1142	2.33	1282	3.28	1406	4.27	1510	5.20	1609	6.17								
6000	1740	1054	1.77	1195	2.68	1327	3.66	1449	4.71	1558	5.79	1651	6.80	1741	7.85						
6500	1885	1118	2.08	1251	3.06	1374	4.07	1494	5.20	1601	6.35	1700	7.51	1784	8.59	1866	9.71				
7000	2030	1182	2.42	1309	3.49	1425	4.54	1538	5.70	1645	6.93	1743	8.17	1833	9.43	1911	10.58				
7500	2175	1248	2.81	1368	3.95	1479	5.07	1585	6.25	1689	7.54	1786	8.86	1876	10.20	1960	11.53	2034	12.78	2104	14.02
8000	2320	1315	3.24	1429	4.46	1536	5.66	1636	6.87	1734	8.19	1830	9.59	1919	10.99	2003	12.42	2082	13.83		
8500	2465	1382	3.72	1492	5.02	1593	6.30	1690	7.57	1782	8.89	1874	10.34	1963	11.83	2045	13.31				
9000	2610	1450	4.25	1555	5.62	1653	6.99	1745	8.33	1834	9.68	1920	11.13	2008	12.70	2089	14.26				
9500	2755	1518	4.83	1619	6.28	1713	7.73	1802	9.15	1888	10.56	1970	12.02	2053	13.60						
10000	2900	1587	5.47	1684	6.99	1774	8.51	1860	10.02	1943	11.50	2022	13.00	2100	14.58						
10500	3045	1656	6.17	1750	7.76	1837	9.37	1920	10.95	1999	12.51	2076	14.07								
11000	3190	1726	6.93	1816	8.60	1900	10.27	1980	11.95	2057	13.58										
11500	3335	1795	7.75	1883	9.51	1964	11.25	2042	12.99	2116	14.73										
12000	3480	1865	8.64	1950	10.47	2029	12.28	2104	14.12												
12500	3625	1936	9.60	2018	11.51	2094	13.41														
13000	3771	2007	10.64	2086	12.63																
13500	3916	2078	11.76																		

Maximum Motor Horsepower = 15 Maximum TEFC Motor Frame Size 284

Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream. Performance shown is for installation type B-Free inlet, Ducted outlet.



Wheel Diameter = 27.00 in.
 Outlet Area = 4.19 sq. ft. inside
 Maximum BHP = 2.58 x (RPM/1000)³
 Tip Speed, fpm = 7.07 x RPM
 Class II RPM = 1984

Size

2700 SISW

Design 8510 Centrifugal AF Swingout Fans

Volume O.Vel		1"SP		2"SP		3"SP		4"SP		5"SP		6"SP		7"SP		8"SP		9"SP		10"SP	
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
3000	716	615	0.57																		
3500	836	649	0.69																		
4000	955	682	0.80	853	1.50																
4500	1075	716	0.94	888	1.73																
5000	1194	755	1.09	921	1.96	1050	2.82														
5500	1313	796	1.28	954	2.20	1087	3.17	1196	4.12												
6000	1433	839	1.49	987	2.45	1119	3.51	1228	4.55												
6500	1552	884	1.73	1023	2.72	1152	3.86	1264	5.02	1357	6.11										
7000	1672	930	1.99	1061	3.04	1185	4.22	1296	5.47	1393	6.69	1478	7.88								
7500	1791	977	2.28	1102	3.41	1219	4.61	1329	5.93	1428	7.28	1513	8.55	1592	9.82						
8000	1911	1025	2.59	1144	3.80	1254	5.03	1362	6.42	1460	7.83	1549	9.26	1627	10.61	1700	11.96				
8500	2030	1073	2.94	1187	4.23	1293	5.51	1395	6.92	1492	8.41	1581	9.92	1664	11.45	1734	12.85	1803	14.29		
9000	2149	1122	3.32	1232	4.70	1334	6.04	1430	7.46	1525	9.03	1613	10.60	1696	12.23	1771	13.80	1837	15.28	1902	16.80
9500	2269	1171	3.74	1277	5.20	1375	6.62	1467	8.06	1559	9.65	1646	11.32	1727	13.00	1804	14.71	1873	16.34	1936	17.91
10000	2388	1221	4.20	1323	5.73	1418	7.23	1507	8.73	1593	10.32	1679	12.06	1760	13.82	1836	15.59	1907	17.37	1972	19.08
10500	2508	1272	4.70	1370	6.30	1461	7.89	1548	9.45	1630	11.06	1713	12.82	1793	14.68	1868	16.50	1939	18.36		
11000	2627	1323	5.24	1418	6.91	1506	8.59	1590	10.23	1669	11.88	1748	13.63	1827	15.55	1901	17.46	1971	19.38		
11500	2746	1374	5.82	1466	7.57	1551	9.33	1632	11.04	1710	12.76	1784	14.52	1860	16.44	1934	18.44				
12000	2866	1425	6.45	1514	8.28	1597	10.10	1675	11.91	1751	13.68	1823	15.50	1895	17.40	1967	19.45				
12500	2985	1476	7.13	1563	9.04	1643	10.94	1720	12.83	1793	14.67	1863	16.53	1932	18.45						
13000	3105	1528	7.86	1612	9.83	1690	11.81	1764	13.78	1836	15.72	1904	17.63	1971	19.59						
14000	3343	1633	9.47	1712	11.61	1786	13.73	1856	15.85	1924	17.97										
15000	3582	1737	11.30	1812	13.59	1883	15.86	1949	18.13												
16000	3821	1843	13.38	1914	15.83	1981	18.23														
17000	4060	1949	15.72																		

Maximum Motor Horsepower = 20

Maximum TEFC Motor Frame Size 286

Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream. Performance shown is for installation type B-Free inlet, Ducted outlet.

Wheel Diameter = 30.00 in.
 Outlet Area = 5.17 sq. ft. inside
 Maximum BHP = 4.37 x (RPM/1000)³
 Tip Speed, fpm = 7.85 x RPM
 Class II RPM = 1793

Size

3000 SISW

Design 8510 Centrifugal AF Swingout Fans

Volume O.Vel		1"SP		2"SP		3"SP		4"SP		5"SP		6"SP		7"SP		8"SP		9"SP		10"SP	
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
4500	870	593	0.89																		
5000	967	617	1.01	770	1.88																
5500	1064	642	1.14	796	2.11																
6000	1161	669	1.29	821	2.34	937	3.38														
6500	1257	699	1.47	844	2.57	962	3.71														
7000	1354	730	1.67	868	2.81	988	4.06	1085	5.25												
7500	1451	761	1.89	893	3.07	1012	4.40	1110	5.71	1199	7.02										
8000	1548	794	2.12	919	3.35	1036	4.75	1137	6.18	1220	7.52										
8500	1644	827	2.38	947	3.66	1060	5.11	1160	6.62	1246	8.09	1324	9.54								
9000	1741	861	2.66	976	4.01	1084	5.49	1183	7.07	1273	8.68	1348	10.19	1422	11.77						
9500	1838	896	2.96	1007	4.39	1109	5.88	1207	7.55	1296	9.24	1375	10.90	1444	12.48	1515	14.20				
10000	1934	931	3.28	1037	4.80	1136	6.32	1232	8.04	1319	9.80	1400	11.59	1470	13.29	1536	14.98	1604	16.81		
10500	2031	966	3.63	1069	5.23	1164	6.81	1256	8.55	1343	10.40	1423	12.26	1497	14.14	1561	15.87	1623	17.65		
11000	2128	1002	4.02	1102	5.70	1194	7.34	1281	9.08	1368	11.01	1447	12.94	1521	14.93	1587	16.81	1647	18.63	1707	20.51
11500	2225	1038	4.42	1134	6.18	1224	7.90	1308	9.67	1392	11.64	1470	13.65	1544	15.69	1612	17.73	1674	19.67	1730	21.57
12000	2321	1074	4.87	1168	6.70	1254	8.50	1336	10.31	1417	12.28	1495	14.39	1567	16.48	1636	18.63	1700	20.75	1757	22.74
12500	2418	1110	5.34	1202	7.24	1286	9.14	1365	10.99	1442	12.97	1519	15.13	1591	17.31	1659	19.53	1725	21.78	1784	23.96
13000	2515	1147	5.84	1236	7.82	1317	9.79	1395	11.72	1469	13.72	1543	15.89	1616	18.18	1683	20.45	1747	22.74		
14000	2708	1222	6.96	1305	9.09	1383	11.21	1456	13.30	1527	15.39	1595	17.57	1664	19.93	1731	22.38				
15000	2902	1296	8.21	1376	10.49	1449	12.77	1520	15.03	1587	17.26	1652	19.50	1715	21.87	1779	24.39				
16000	3095	1372	9.63	1447	12.06	1518	14.49	1584	16.91	1649	19.30	1711	21.66	1771	24.08						
17000	3288	1448	11.21	1520	13.80	1587	16.38	1651	18.96	1713	21.51	1772	24.02								
18000	3482	1524	12.97	1593	15.71	1657	18.43	1719	21.19	1778	23.88										
19000	3675	1601	14.92	1667	17.82	1729	20.70	1787	23.56												
20000	3869	1678	17.07	1741	20.13																

Maximum Motor Horsepower = 25

Maximum TEFC Motor Frame Size 324

Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream. Performance shown is for installation type B-Free inlet, Ducted outlet.



Size

3300 sisw

Design 8510 Centrifugal AF Swingout Fans

Wheel Diameter = 33.00 in.
 Outlet Area = 6.26 sq. ft. inside
 Maximum BHP = 7.52 x (RPM/1000)³
 Tip Speed, fpm = 8.64 x RPM
 Class II RPM = 1589

Volume O.Vel		1"SP		2"SP		3"SP		4"SP		5"SP		6"SP		7"SP		8"SP		9"SP		10"SP	
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
5500	879	527	1.06																		
6000	959	545	1.19	688	2.26																
6500	1038	564	1.33	702	2.45																
7000	1118	584	1.48	718	2.65																
7500	1198	606	1.65	735	2.88	846	4.23														
8000	1278	629	1.84	752	3.11	860	4.51														
8500	1358	653	2.04	770	3.37	876	4.82	972	6.40												
9000	1438	677	2.26	789	3.64	893	5.15	986	6.77												
9500	1518	701	2.50	809	3.94	911	5.50	1001	7.16	1086	8.94										
10000	1598	726	2.75	830	4.25	928	5.86	1018	7.58	1099	9.39										
10500	1678	751	3.01	852	4.59	946	6.25	1035	8.02	1115	9.87	1191	11.84								
11000	1757	776	3.29	875	4.95	965	6.66	1052	8.49	1131	10.38	1205	12.38								
11500	1837	800	3.59	898	5.34	985	7.10	1069	8.97	1148	10.92	1220	12.96	1290	15.09						
12000	1917	826	3.91	921	5.75	1006	7.56	1087	9.48	1165	11.49	1237	13.57	1305	15.75	1371	18.01				
12500	1997	851	4.24	946	6.19	1027	8.05	1106	10.02	1182	12.09	1254	14.22	1320	16.43	1384	18.72	1448	21.13		
13000	2077	877	4.61	970	6.64	1049	8.56	1126	10.60	1200	12.71	1271	14.90	1336	17.14	1399	19.47	1460	21.91		
14000	2237	929	5.40	1019	7.61	1095	9.69	1166	11.81	1237	14.03	1305	16.32	1371	18.70	1431	21.10	1489	23.58	1546	26.16
15000	2397	982	6.29	1068	8.67	1142	10.94	1210	13.15	1276	15.47	1341	17.88	1405	20.33	1465	22.88	1523	25.47	1577	28.10
16000	2556	1036	7.30	1118	9.82	1191	12.29	1255	14.64	1318	17.05	1380	19.56	1440	22.12	1499	24.75	1556	27.45		
17000	2716	1090	8.42	1168	11.08	1240	13.75	1303	16.26	1362	18.77	1420	21.37	1478	24.05	1535	26.77				
18000	2876	1145	9.66	1219	12.45	1289	15.31	1351	18.02	1408	20.65	1463	23.34	1518	26.13	1573	28.95				
19000	3036	1200	11.04	1271	13.95	1339	16.98	1400	19.92	1455	22.68	1508	25.48	1560	28.35						
20000	3195	1255	12.56	1323	15.59	1388	18.75	1449	21.90	1503	24.88	1555	27.80								
21000	3355	1311	14.21	1377	17.38	1439	20.68	1498	24.00	1552	27.21										
22000	3515	1367	16.03	1430	19.31	1490	22.74	1548	26.26												

Maximum Motor Horsepower = 30 Maximum TEFC Motor Frame Size 326
 Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream. Performance shown is for installation type B-Free inlet, Ducted outlet.

Size

3650 sisw

Design 8510 Centrifugal AF Swingout Fans

Wheel Diameter = 36.50 in.
 Outlet Area = 7.65 sq. ft. inside
 Maximum BHP = 12.5 x (RPM/1000)³
 Tip Speed, fpm = 9.56 x RPM
 Class II RPM = 1478

Volume O.Vel		1"SP		2"SP		3"SP		4"SP		5"SP		6"SP		7"SP		8"SP		9"SP		10"SP	
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
6500	849	471	1.25																		
7000	914	483	1.37																		
7500	979	497	1.50	625	2.82																
8000	1045	511	1.64	636	3.01																
8500	1110	526	1.79	648	3.22																
9000	1175	542	1.96	660	3.44	761	5.09														
10000	1306	576	2.33	686	3.92	783	5.65														
11000	1437	612	2.76	713	4.45	808	6.29	891	8.27												
12000	1567	648	3.24	743	5.05	833	7.00	914	9.06	989	11.26										
13000	1698	684	3.77	775	5.72	860	7.78	940	9.95	1012	12.24	1080	14.64								
14000	1828	721	4.35	809	6.47	888	8.62	965	10.90	1036	13.29	1102	15.77	1165	18.39						
15000	1959	758	4.99	844	7.31	919	9.56	992	11.95	1062	14.44	1126	17.03	1186	19.68	1245	22.49				
16000	2090	796	5.71	880	8.21	951	10.58	1020	13.07	1088	15.67	1151	18.36	1211	21.12	1267	23.97	1322	26.95		
17000	2220	835	6.50	916	9.19	985	11.70	1051	14.29	1115	16.99	1177	19.77	1236	22.67	1291	25.59	1344	28.62	1395	31.77
18000	2351	874	7.38	953	10.23	1020	12.92	1082	15.61	1143	18.41	1203	21.30	1261	24.30	1316	27.34	1368	30.45	1417	33.65
19000	2481	913	8.33	990	11.35	1056	14.24	1116	17.04	1174	19.93	1231	22.93	1287	26.03	1341	29.19	1392	32.40	1441	35.69
20000	2612	953	9.39	1026	12.53	1092	15.66	1150	18.59	1205	21.58	1260	24.67	1314	27.87	1367	31.13	1418	34.46	1466	37.85
21000	2743	994	10.54	1064	13.82	1128	17.13	1185	20.24	1238	23.34	1291	26.53	1343	29.84	1393	33.19	1443	36.62		
22000	2873	1034	11.79	1102	15.20	1165	18.70	1221	22.01	1272	25.22	1322	28.51	1372	31.91	1421	35.36	1469	38.90		
23000	3004	1075	13.15	1140	16.69	1201	20.35	1257	23.90	1307	27.24	1355	30.64	1403	34.11	1450	37.68				
24000	3134	1116	14.63	1178	18.28	1238	22.09	1293	25.83	1343	29.41	1389	32.88	1435	36.45						
26000	3395	1198	17.93	1257	21.84	1313	25.91	1366	30.04	1415	34.05	1459	37.83								
28000	3657	1282	21.75	1336	25.90	1389	30.25	1439	34.66												
30000	3918	1366	26.13	1416	30.50	1466	35.08														
32000	4179	1450	31.08																		

Maximum Motor Horsepower = 40 Maximum TEFC Motor Frame Size 364
 Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream. Performance shown is for installation type B-Free inlet, Ducted outlet.



Wheel Diameter = 40.25 in.
 Outlet Area = 9.31 sq. ft. inside
 Maximum BHP = 20.3 x (RPM/1000)³
 Tip Speed, fpm = 10.5 x RPM
 Class II RPM = 1353

Size

4025 SISW

Design 8510 Centrifugal AF Swingout Fans

Volume O.Vel		1"SP		2"SP		3"SP		4"SP		5"SP		6"SP		7"SP		8"SP		9"SP		10"SP	
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
7000	752	410	1.32																		
8000	859	428	1.54																		
9000	967	448	1.79	565	3.40																
10000	1074	470	2.07	581	3.78																
11000	1181	493	2.40	600	4.21	691	6.22														
12000	1289	518	2.77	619	4.68	707	6.77														
13000	1396	545	3.19	639	5.20	725	7.40	802	9.77												
14000	1504	572	3.65	660	5.77	744	8.08	818	10.54	888	13.17										
15000	1611	599	4.15	683	6.40	764	8.82	837	11.38	904	14.09										
16000	1718	626	4.69	708	7.09	784	9.61	855	12.28	921	15.07	982	18.00								
17000	1826	653	5.27	733	7.85	805	10.46	875	13.24	939	16.13	999	19.14	1056	22.33						
18000	1933	681	5.91	759	8.67	828	11.39	894	14.26	958	17.27	1017	20.38	1072	23.61	1126	27.02				
19000	2041	709	6.60	786	9.56	852	12.38	915	15.37	977	18.47	1035	21.70	1089	25.01	1142	28.48	1192	32.06		
20000	2148	738	7.36	813	10.51	876	13.46	937	16.54	997	19.75	1054	23.08	1108	26.50	1159	30.04	1207	33.67	1256	37.47
21000	2255	767	8.18	840	11.51	902	14.63	960	17.79	1018	21.10	1073	24.54	1127	28.08	1177	31.71	1224	35.40	1271	39.24
22000	2363	796	9.07	867	12.56	928	15.86	984	19.13	1039	22.55	1093	26.08	1146	29.73	1195	33.46	1242	37.25	1287	41.15
24000	2577	855	11.07	922	14.84	982	18.57	1034	22.09	1085	25.71	1136	29.43	1185	33.28	1233	37.20	1280	41.23	1324	45.33
26000	2792	915	13.38	978	17.42	1036	21.56	1087	25.43	1135	29.23	1181	33.16	1227	37.20	1273	41.37	1318	45.60		
28000	3007	976	16.04	1035	20.35	1090	24.80	1141	29.12	1186	33.19	1230	37.33	1273	41.55	1316	45.89				
30000	3222	1037	19.07	1092	23.62	1145	28.35	1195	33.10	1239	37.56	1281	41.96	1321	46.35						
32000	3437	1098	22.50	1151	27.29	1201	32.29	1249	37.38	1293	42.31	1334	47.04								
34000	3651	1161	26.35	1210	31.39	1258	36.67	1304	42.03	1347	47.44										
36000	3866	1223	30.67	1270	35.93	1315	41.43														
38000	4081	1286	35.45	1330	40.94																
40000	4296	1349	40.74																		

Maximum Motor Horsepower = 50 Maximum TEFC Motor Frame Size 365

Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream. Performance shown is for installation type B-Free inlet, Ducted outlet.

Wheel Diameter = 44.50 in.
 Outlet Area = 11.37 sq. ft. inside
 Maximum BHP = 33.1 x (RPM/1000)³
 Tip Speed, fpm = 11.7 x RPM
 Class II RPM = 1150
 Class IIX RPM = 1222

Size

4450 SISW

Design 8510 Centrifugal AF Swingout Fans

Volume O.Vel		1"SP		2"SP		3"SP		4"SP		5"SP		6"SP		7"SP		8"SP		9"SP		10"SP	
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
8000	704	364	1.46																		
9000	792	377	1.67																		
10000	879	391	1.90																		
11000	967	405	2.15	510	4.01																
12000	1055	420	2.42	523	4.41																
13000	1143	437	2.73	536	4.85	620	7.10														
14000	1231	454	3.06	550	5.31	631	7.67														
15000	1319	473	3.42	564	5.79	644	8.30	715	10.92												
16000	1407	491	3.81	579	6.31	658	8.96	726	11.66												
17000	1495	511	4.25	595	6.87	672	9.64	739	12.48	801	15.45										
18000	1583	530	4.72	611	7.46	685	10.35	752	13.35	812	16.39	872	19.65								
19000	1671	550	5.23	628	8.10	700	11.10	766	14.26	825	17.41	881	20.72								
20000	1759	571	5.78	646	8.77	715	11.91	780	15.18	839	18.50	893	21.88	946	25.40						
22000	1935	613	7.03	683	10.27	747	13.65	809	17.14	867	20.77	920	24.42	969	28.09	1017	31.94	1065	35.94		
24000	2111	655	8.47	721	11.96	782	15.60	839	19.33	895	23.17	947	27.13	997	31.14	1042	35.08	1086	39.17	1130	43.43
26000	2287	699	10.13	760	13.87	818	17.74	872	21.75	925	25.82	976	30.01	1024	34.28	1069	38.60	1112	42.91	1153	47.27
28000	2463	743	12.02	801	16.01	855	20.13	907	24.37	957	28.71	1005	33.10	1052	37.64	1097	42.22	1139	46.84	1179	51.44
30000	2638	787	14.17	842	18.42	894	22.77	943	27.24	990	31.83	1036	36.50	1081	41.21	1125	46.07	1167	50.99	1207	55.94
32000	2814	832	16.56	884	21.07	934	25.68	981	30.40	1026	35.22	1070	40.18	1112	45.11	1154	50.14	1195	55.30		
34000	2990	877	19.26	927	24.02	974	28.90	1019	33.86	1062	38.90	1104	44.10	1145	49.30	1185	54.57				
36000	3166	923	22.26	971	27.27	1015	32.39	1058	37.63	1100	42.89	1140	48.32	1179	53.77	1217	59.30				
38000	3342	969	25.57	1014	30.85	1057	36.21	1098	41.67	1138	47.23	1177	52.85	1214	58.54						
40000	3518	1015	29.22	1058	34.76	1100	40.39	1139	46.08	1178	51.90	1215	57.73								
42000	3694	1061	33.25	1103	39.06	1143	44.90	1181	50.87	1217	56.88										
44000	3870	1107	37.66	1148	43.68	1186	49.81														

Maximum Motor Horsepower = 50 Maximum TEFC Motor Frame Size 365
 Maximum Motor Horsepower = 60 Maximum TEFC Motor Frame Size 405

Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream. Performance shown is for installation type B-Free inlet, Ducted outlet.



Wheel Diameter = 49.00 in.
 Outlet Area = 13.78 sq. ft. inside
 Maximum BHP = 53.6 x (RPM/1000)³
 Tip Speed, fpm = 12.8 x RPM

Size

4900 sisw

Design 8510 Centrifugal AF Swingout Fans

Class II RPM = 980
 Class IIX RPM = 1184

Volume O.Vel		1"SP		2"SP		3"SP		4"SP		5"SP		6"SP		7"SP		8"SP		9"SP		10"SP	
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
10000	725	333	1.83																		
11000	798	343	2.05																		
12000	870	354	2.28																		
13000	943	364	2.52	461	4.74																
14000	1016	375	2.78	469	5.12																
15000	1088	387	3.07	479	5.54																
16000	1161	400	3.38	490	5.99	565	8.74														
18000	1306	427	4.07	511	6.93	583	9.94	648	13.12												
20000	1451	455	4.88	533	7.98	604	11.28	665	14.62	724	18.21										
22000	1596	484	5.81	557	9.16	624	12.68	685	16.36	740	20.05	793	24.02								
24000	1741	515	6.87	583	10.47	646	14.23	706	18.17	759	22.15	809	26.21	857	30.51						
26000	1886	546	8.08	610	11.92	670	15.96	727	20.09	780	24.44	828	28.71	874	33.11	918	37.71				
28000	2031	577	9.45	639	13.54	695	17.81	749	22.20	801	26.74	849	31.39	893	36.03	936	40.76	977	45.65	1019	50.80
30000	2176	610	10.98	668	15.33	722	19.83	773	24.52	822	29.26	870	34.19	914	39.13	955	44.09	995	49.13	1033	54.35
32000	2321	642	12.71	698	17.30	749	22.05	798	26.97	845	31.97	891	37.07	935	42.35	976	47.63	1014	52.90	1051	58.23
34000	2466	675	14.62	728	19.47	777	24.47	824	29.62	870	34.88	913	40.21	956	45.72	997	51.29	1035	56.90	1071	62.48
36000	2611	709	16.76	759	21.85	806	27.10	851	32.48	895	38.00	937	43.59	978	49.28	1017	55.09	1056	61.01	1092	66.94
38000	2756	742	19.08	791	24.44	836	29.96	879	35.59	921	41.32	961	47.17	1001	53.11	1039	59.14	1076	65.26	1113	71.51
40000	2901	776	21.65	823	27.29	866	33.02	908	38.89	948	44.90	987	50.97	1025	57.20	1062	63.44	1098	69.75	1133	76.22
42000	3047	810	24.48	855	30.34	897	36.34	937	42.45	976	48.69	1013	55.02	1050	61.53	1085	67.98	1120	74.53	1155	81.18
44000	3192	844	27.55	887	33.68	928	39.92	966	46.30	1004	52.74	1040	59.34	1076	66.02	1110	72.77	1144	79.57	1177	86.44
48000	3482	913	34.48	953	41.13	991	47.89	1027	54.75	1062	61.71	1096	68.74	1129	75.90	1162	83.17				
52000	3772	982	42.62	1020	49.79	1055	57.01	1089	64.40	1122	71.83	1154	79.35								
56000	4062	1052	52.00	1087	59.65	1120	67.45	1152	75.29	1183	83.20										
60000	4352	1122	62.72	1155	70.96																
Maximum Motor Horsepower = 50																		Maximum TEFC Motor Frame Size 365			
Maximum Motor Horsepower = 100																		Maximum TEFC Motor Frame Size 444			

Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream. Performance shown is for installation type B-Free inlet, Ducted outlet.

Wheel Diameter = 54.25 in.
 Outlet Area = 16.91 sq. ft. inside
 Maximum BHP = 89.1 x (RPM/1000)³
 Tip Speed, fpm = 14.2 x RPM

Size

5425 sisw

Design 8510 Centrifugal AF Swingout Fans

Class II RPM = 878
 Class IIX RPM = 1042

Volume O.Vel		1"SP		2"SP		3"SP		4"SP		5"SP		6"SP		7"SP		8"SP		9"SP		10"SP	
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
12000	710	299	2.19																		
14000	828	314	2.63																		
16000	947	329	3.10	416	5.83																
18000	1065	346	3.65	430	6.63																
20000	1184	365	4.27	445	7.53	512	10.94														
22000	1302	385	4.97	461	8.46	526	12.14	585	16.04												
24000	1420	405	5.76	477	9.49	541	13.46	597	17.50	651	21.88										
26000	1539	427	6.65	495	10.65	557	14.86	611	19.18	662	23.65										
28000	1657	449	7.64	513	11.88	572	16.32	627	20.97	675	25.62	722	30.51								
30000	1775	471	8.75	532	13.23	589	17.93	642	22.83	690	27.82	735	32.84	777	38.10						
32000	1894	494	9.99	553	14.71	607	19.67	658	24.76	706	30.09	749	35.36	790	40.77	830	46.40				
34000	2012	518	11.35	573	16.32	625	21.52	674	26.86	721	32.39	764	38.04	805	43.71	843	49.42	881	55.42	919	61.74
36000	2130	541	12.85	595	18.07	644	23.51	691	29.11	736	34.84	780	40.78	820	46.78	857	52.73	893	58.80	929	65.14
38000	2249	565	14.49	617	19.99	664	25.66	710	31.51	753	37.47	795	43.63	835	49.95	872	56.23	907	62.49	941	68.91
40000	2367	590	16.29	639	22.02	685	27.95	728	34.04	770	40.27	811	46.63	850	53.19	888	59.84	922	66.39	955	72.99
42000	2485	614	18.25	661	24.24	706	30.40	748	36.74	788	43.24	828	49.83	866	56.58	903	63.50	937	70.41	970	77.31
44000	2604	639	20.39	684	26.63	727	33.04	768	39.63	807	46.37	845	53.20	882	60.19	918	67.27	953	74.51	985	81.76
46000	2722	663	22.69	707	29.18	749	35.87	788	42.68	826	49.70	863	56.76	899	63.99	934	71.25	968	78.73	1001	86.32
48000	2841	688	25.18	731	31.94	771	38.85	809	45.91	846	53.13	882	60.52	916	67.95	950	75.46	983	83.14	1016	90.99
52000	3077	738	30.78	778	38.02	816	45.43	852	53.00	887	60.73	920	68.51	953	76.52	985	84.60	1017	92.67		
56000	3314	788	37.18	826	44.98	862	52.88	896	60.92	929	69.16	960	77.41	992	85.83	1022	94.41				
60000	3551	839	44.50	875	52.80	909	61.25	941	69.76	972	78.51	1002	87.23	1032	96.10						
65000	3847	903	55.06	937	63.98	968	73.02	998	82.18	1028	91.54										
70000	4142	968	67.20	999	76.78	1028	86.47														
75000	4438	1032	81.12																		
Maximum Motor Horsepower = 60																		Maximum TEFC Motor Frame Size 405			
Maximum Motor Horsepower = 100																		Maximum TEFC Motor Frame Size 444			

Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream. Performance shown is for installation type B-Free inlet, Ducted outlet.

Wheel Diameter = 60.00 in.
 Outlet Area = 20.66 sq. ft. inside
 Maximum BHP = 148 x (RPM/1000)³
 Tip Speed, fpm = 15.7 x RPM
 Class II RPM = 967

Size

6000 SISW

Design 8510 Centrifugal AF Swingout Fans

Volume O.Vel		1"SP		2"SP		3"SP		4"SP		5"SP		6"SP		7"SP		8"SP		9"SP		10"SP	
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
16000	774	277	3.0																		
18000	871	289	3.4																		
20000	968	300	3.9	379	7.3																
22000	1064	313	4.5	389	8.1																
24000	1161	327	5.1	400	9.0	461	13.1														
26000	1258	341	5.7	411	9.9	471	14.3														
28000	1355	356	6.5	423	10.9	482	15.5	533	20.4												
30000	1451	372	7.3	435	12.0	493	16.9	543	21.9	591	27.3										
32000	1548	387	8.2	448	13.1	504	18.3	554	23.6	599	29.1										
34000	1645	404	9.2	462	14.4	516	19.8	565	25.4	609	31.1	651	37.0								
36000	1742	420	10.3	476	15.7	528	21.3	577	27.3	620	33.2	661	39.3	700	45.8						
38000	1838	437	11.5	491	17.1	541	23.0	588	29.2	632	35.5	671	41.8	709	48.3						
40000	1935	454	12.8	506	18.7	554	24.8	600	31.2	643	37.8	682	44.4	719	51.1	747	55.2	790	65.4		
44000	2129	489	15.7	537	22.1	582	28.7	625	35.6	666	42.6	705	49.8	741	57.2	775	64.4	807	71.9	839	79.6
48000	2322	525	19.1	570	26.0	612	33.1	652	40.5	691	48.0	728	55.6	764	63.5	797	71.5	828	79.4	859	87.3
52000	2516	561	23.0	603	30.4	643	38.0	681	45.8	717	53.8	752	62.0	786	70.3	820	78.9	851	87.5	881	96.0
56000	2709	597	27.4	637	35.3	675	43.5	711	51.8	745	60.3	778	69.0	811	77.7	843	86.6	873	95.7	903	105.0
60000	2903	634	32.5	672	41.0	707	49.5	741	58.4	774	67.4	806	76.5	837	85.8	867	95.2	897	104.6	926	114.3
65000	3145	680	39.8	716	48.8	749	58.1	781	67.5	812	77.1	842	86.8	871	96.7	900	106.7	928	116.8	955	127.0
70000	3386	727	48.1	761	57.8	792	67.7	822	77.7	851	87.9	880	98.3	908	108.8	935	119.4	961	130.1		
75000	3628	774	57.6	806	68.0	836	78.5	864	89.1	892	100.0	919	111.0	945	122.0						
80000	3870	821	68.5	851	79.4	880	90.6	907	101.8	933	113.3	959	124.9								
85000	4112	869	80.6	897	92.2	924	104.0	950	116.0												
90000	4354	917	94.1	944	106.5																
95000	4596	964	109.2																		

Maximum Motor Horsepower = 150

Maximum TEFC Motor Frame Size 447

Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream. Performance shown is for installation type B-Free inlet, Ducted outlet.

Wheel Diameter = 66.00 in.
 Outlet Area = 25.01 sq. ft. inside
 Maximum BHP = 238 x (RPM/1000)³
 Tip Speed, fpm = 17.3 x RPM
 Class II RPM = 879

Size

6600 SISW

Design 8510 Centrifugal AF Swingout Fans

Volume O.Vel		1"SP		2"SP		3"SP		4"SP		5"SP		6"SP		7"SP		8"SP		9"SP		10"SP	
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
20000	800	255	3.7																		
22000	880	264	4.2																		
24000	960	272	4.7	343	8.8																
26000	1040	282	5.2	351	9.5																
28000	1119	292	5.8	359	10.4	416	15.3														
30000	1199	302	6.5	368	11.3	422	16.4														
32000	1279	313	7.2	376	12.2	430	17.6	479	23.3												
34000	1359	324	7.9	385	13.2	438	18.9	485	24.8												
36000	1439	336	8.7	394	14.3	447	20.3	493	26.3	536	32.8										
38000	1519	348	9.6	404	15.5	455	21.6	501	28.0	542	34.5										
40000	1599	360	10.6	414	16.7	464	23.1	509	29.8	549	36.5	589	43.7								
44000	1759	385	12.7	435	19.3	482	26.2	526	33.4	566	40.7	602	48.1	638	55.9						
48000	1919	410	15.2	458	22.3	502	29.7	543	37.3	583	45.2	618	53.2	652	61.3	685	69.6	717	78.5		
52000	2079	437	18.0	481	25.6	523	33.5	562	41.6	600	50.0	636	58.6	668	67.2	699	75.8	729	84.8	760	94.2
56000	2239	463	21.2	505	29.3	545	37.7	582	46.3	618	55.1	652	64.2	686	73.6	716	82.8	745	92.0	773	101.5
60000	2399	490	24.9	530	33.5	567	42.3	603	51.4	637	60.8	670	70.3	702	80.0	733	90.0	762	100.0	789	109.8
65000	2599	524	30.0	562	39.3	597	48.7	630	58.5	663	68.4	694	78.5	724	88.9	754	99.3	782	110.0	809	120.7
70000	2799	558	35.9	594	45.8	627	55.9	659	66.2	689	76.8	719	87.6	748	98.4	776	109.5	804	120.8	831	132.3
75000	2999	593	42.7	627	53.2	658	63.9	688	74.8	717	86.0	746	97.4	773	108.9	800	120.5	826	132.3	852	144.2
80000	3199	628	50.3	660	61.4	690	72.8	719	84.3	746	96.0	773	108.0	799	120.2	825	132.5	850	144.8	875	157.3
85000	3398	663	58.7	693	70.5	722	82.5	749	94.7	776	107.1	802	119.7	827	132.4	851	145.3	875	158.3		
90000	3598	698	68.2	727	80.7	755	93.3	781	106.1	806	119.1	831	132.3	855	145.5	878	159.0				
95000	3798	734	78.8	762	91.9	788	105.1	813	118.5	837	132.1	861	145.8								
100000	3998	770	90.4	796	104.1	821	118.1	845	132.0	868	146.2										
105000	4198	805	103.1	831	117.5	855	132.0	878	146.7												

Maximum Motor Horsepower = 200

Maximum TEFC Motor Frame Size 447

Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream. Performance shown is for installation type B-Free inlet, Ducted outlet.



Size

2225 SISW

Design 8520 Centrifugal BI Swingout Fans

Wheel Diameter = 22.25 in.
 Outlet Area = 2.85 sq. ft. inside
 Maximum BHP = 1.48 x (RPM/1000)³
 Tip Speed, fpm = 5.83 x RPM
 Class II RPM = 2164

Volume O.Vel		1"SP		2"SP		3"SP		4"SP		5"SP		6"SP		7"SP		8"SP		9"SP		10"SP	
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
2400	845	724	0.49																		
2600	915	740	0.54																		
2800	986	757	0.59	982	1.16																
3000	1056	776	0.65	994	1.23																
3200	1126	795	0.72	1008	1.31																
3400	1197	817	0.78	1023	1.39	1201	2.11														
3600	1267	840	0.86	1039	1.48	1213	2.21														
3800	1338	864	0.94	1056	1.58	1226	2.32	1379	3.16												
4000	1408	889	1.03	1074	1.69	1240	2.44	1390	3.29												
4400	1549	942	1.22	1111	1.94	1271	2.71	1415	3.58	1549	4.54										
4800	1690	998	1.44	1154	2.21	1305	3.03	1445	3.92	1573	4.89	1695	5.94								
5200	1830	1056	1.69	1200	2.52	1342	3.38	1477	4.29	1602	5.29	1719	6.36	1831	7.50						
5600	1971	1115	1.97	1250	2.85	1382	3.77	1511	4.72	1634	5.74	1747	6.83	1854	7.98	1959	9.22				
6000	2112	1176	2.29	1302	3.23	1426	4.19	1549	5.19	1666	6.23	1777	7.34	1883	8.53	1982	9.77	2080	11.07		
6500	2288	1254	2.75	1370	3.74	1485	4.78	1598	5.84	1711	6.93	1818	8.07	1920	9.28	2018	10.55	2111	11.88		
7000	2464	1334	3.27	1440	4.32	1548	5.43	1654	6.55	1759	7.71	1862	8.89	1961	10.12	2056	11.42	2146	12.77		
7500	2640	1415	3.87	1513	4.97	1613	6.15	1713	7.34	1811	8.55	1909	9.79	2004	11.07	2097	12.39				
8000	2816	1497	4.54	1588	5.70	1682	6.93	1775	8.20	1868	9.48	1959	10.78	2051	12.11	2140	13.47				
8500	2992	1579	5.30	1665	6.51	1752	7.80	1840	9.13	1928	10.48	2015	11.85	2100	13.24						
9000	3168	1662	6.14	1743	7.40	1825	8.75	1908	10.15	1990	11.57	2073	13.01	2154	14.45						
9500	3344	1746	7.08	1822	8.39	1899	9.79	1978	11.25	2056	12.74	2134	14.25								
10000	3520	1830	8.11	1902	9.47	1975	10.92	2049	12.45	2123	14.00										
10500	3696	1915	9.25	1982	10.66	2052	12.17	2122	13.73												
11000	3872	2000	10.49	2064	11.96	2129	13.51														
11500	4048	2085	11.85	2146	13.37																

Maximum Motor Horsepower = 15

Maximum TEFC Motor Frame Size 284

Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream. Performance shown is for installation type B-Free inlet, Ducted outlet.

Size

2450 SISW

Design 8520 Centrifugal BI Swingout Fans

Wheel Diameter = 24.50 in.
 Outlet Area = 3.45 sq. ft. inside
 Maximum BHP = 2.24 x (RPM/1000)³
 Tip Speed, fpm = 6.41 x RPM
 Class II RPM = 1885

Volume O.Vel		1"SP		2"SP		3"SP		4"SP		5"SP		6"SP		7"SP		8"SP		9"SP		10"SP	
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
2800	812	654	0.56																		
3000	870	669	0.61																		
3200	928	684	0.66																		
3400	986	700	0.71	893	1.35																
3600	1044	716	0.77	903	1.43																
3800	1102	733	0.83	915	1.51																
4000	1160	750	0.90	928	1.60																
4500	1305	792	1.10	965	1.84	1110	2.67														
5000	1450	842	1.32	1005	2.12	1143	3.01	1271	3.95												
5500	1595	898	1.58	1047	2.44	1180	3.37	1301	4.38	1415	5.43										
6000	1740	955	1.88	1088	2.80	1219	3.78	1335	4.84	1443	5.94	1548	7.10								
6500	1885	1015	2.23	1133	3.21	1261	4.24	1373	5.34	1477	6.51	1576	7.71	1672	8.97						
7000	2030	1075	2.62	1183	3.66	1303	4.75	1413	5.90	1513	7.11	1609	8.38	1700	9.68	1789	11.03				
7500	2175	1137	3.06	1237	4.17	1345	5.31	1455	6.51	1553	7.77	1645	9.09	1732	10.45	1818	11.85				
8000	2320	1199	3.56	1294	4.72	1390	5.94	1497	7.18	1593	8.49	1683	9.85	1768	11.28	1850	12.72				
8500	2465	1262	4.12	1352	5.34	1440	6.62	1539	7.92	1635	9.27	1723	10.68	1806	12.15						
9000	2610	1326	4.73	1411	6.02	1494	7.35	1582	8.73	1677	10.12	1764	11.58	1845	13.09						
9500	2755	1391	5.42	1471	6.76	1550	8.16	1629	9.60	1719	11.05	1807	12.55								
10000	2900	1455	6.17	1532	7.58	1607	9.03	1681	10.53	1762	12.05	1849	13.60								
10500	3045	1520	6.99	1593	8.46	1665	9.98	1735	11.53	1809	13.12										
11000	3190	1586	7.88	1655	9.42	1724	11.00	1792	12.62	1859	14.26										
11500	3335	1652	8.86	1718	10.47	1784	12.10	1848	13.77												
12000	3480	1718	9.93	1782	11.58	1844	13.28														
12500	3625	1784	11.07	1845	12.79																
13000	3771	1850	12.31																		

Maximum Motor Horsepower = 15

Maximum TEFC Motor Frame Size 284

Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream. Performance shown is for installation type B-Free inlet, Ducted outlet.

Wheel Diameter = 27.00 in.
 Outlet Area = 4.19 sq. ft. inside
 Maximum BHP = 3.64 x (RPM/1000)³
 Tip Speed, fpm = 7.07 x RPM
 Class II RPM = 1765

Size
2700 SISW

Design 8520 Centrifugal BI Swingout Fans

Volume O.Vel		1"SP		2"SP		3"SP		4"SP		5"SP		6"SP		7"SP		8"SP		9"SP		10"SP	
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
3000	716	576	0.59																		
3500	836	599	0.70																		
4000	955	627	0.83																		
4500	1075	658	0.97	825	1.79																
5000	1194	689	1.15	849	2.01	990	2.97														
5500	1313	721	1.34																		
6000	1433	758	1.57	877	2.26	1009	3.27														
6500	1552	799	1.82	907	2.53	1033	3.60	1150	4.74												
7000	1672	842	2.11	938	2.84	1060	3.96	1171	5.15	1278	6.43										
7500	1791	885	2.43	970	3.18	1089	4.35	1196	5.61	1297	6.91										
8000	1911	930	2.79	1120	4.78	1223	6.08	1223	6.08	1320	7.46	1413	8.88								
8500	2030	975	3.18																		
9000	2149	1021	3.62	1035	3.99	1151	5.25	1252	6.60	1346	8.02	1435	9.50	1522	11.04						
9500	2269	1068	4.10	1073	4.45	1183	5.76	1282	7.16	1373	8.63	1460	10.17	1543	11.76	1624	13.39				
10000	2388	1115	4.64	1114	4.95	1214	6.33	1313	7.77	1402	9.29	1486	10.89	1566	12.52	1645	14.21	1721	15.94		
10500	2508	1162	5.21	1246	6.08	1246	6.94	1345	8.42	1433	9.99	1515	11.64	1592	13.32	1668	15.07	1741	16.85		
11000	2627	1210	5.84	1198	6.08	1282	7.59	1376	9.13	1464	10.75	1544	12.43	1620	14.17	1693	15.98	1764	17.81		
11500	2746	1258	6.53	1321	8.29	1407	9.90	1495	11.55	1574	13.29	1648	15.07	1720	16.93						
12000	2866	1307	7.26	1361	9.04	1440	10.72	1526	12.42	1605	14.20	1678	16.03	1749	17.94						
12500	2985	1355	8.06	1403	9.85	1476	11.59	1557	13.35	1637	15.17	1709	17.05								
13000	3105	1404	8.92	1445	10.71	1514	12.51	1589	14.34	1668	16.20	1740	18.13								
13500	3224	1453	9.84	1489	11.64	1554	13.49	1623	15.38	1699	17.30										
14000	3343	1502	10.83	1532	12.61	1595	14.53	1659	16.50	1730	18.47										
15000	3582	1601	13.02	1577	13.66	1638	15.64	1698	17.66	1764	19.71										
16000	3821	1700	15.50	1622	14.77	1680	16.81	1738	18.89												

Maximum Motor Horsepower = 20 Maximum TEFC Motor Frame Size 286
 Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream. Performance shown is for installation type B-Free inlet, Ducted outlet.

Wheel Diameter = 30.00 in.
 Outlet Area = 5.17 sq. ft. inside
 Maximum BHP = 6.16 x (RPM/1000)³
 Tip Speed, fpm = 7.85 x RPM
 Class II RPM = 1595

Size
3000 SISW

Design 8520 Centrifugal BI Swingout Fans

Volume O.Vel		1"SP		2"SP		3"SP		4"SP		5"SP		6"SP		7"SP		8"SP		9"SP		10"SP	
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
4000	774	527	0.79																		
4500	870	546	0.91																		
5000	967	567	1.04																		
5500	1064	590	1.18	741	2.18																
6000	1161	612	1.35	758	2.40																
6500	1257	635	1.54																		
7000	1354	660	1.75	777	2.64	900	3.86														
7500	1451	688	1.98	798	2.90	915	4.17														
8000	1548	718	2.24	821	3.18	934	4.51	1038	5.93												
8500	1644	749	2.52	843	3.49	953	4.87	1053	6.34	1150	7.91										
9000	1741	780	2.83	866	3.83	974	5.25	1071	6.78	1163	8.39										
9500	1838	812	3.17																		
10000	1934	845	3.53	889	4.20	996	5.67	1091	7.26	1179	8.91	1264	10.65								
10500	2031	878	3.93	913	4.60	1019	6.12	1111	7.76	1197	9.47	1279	11.25								
11000	2128	912	4.37	938	5.03	1042	6.60	1132	8.29	1216	10.05	1296	11.89								
11500	2225	945	4.84	1065	5.50	1065	7.12	1154	8.85	1236	10.67	1314	12.57	1462	16.54						
12000	2321	980	5.35	996	5.99	1087	7.68	1177	9.45	1257	11.32	1333	13.27	1476	17.34	1546	19.48				
13000	2515	1049	6.48	1110	8.28	1200	10.09	1279	12.00	1353	14.01	1425	16.09	1493	18.19	1560	20.37				
14000	2708	1118	7.78	1135	8.91	1223	10.77	1301	12.73	1374	14.78	1444	16.92	1511	19.08	1576	21.31				
15000	2902	1189	9.25	1191	10.29	1268	12.28	1347	14.33	1418	16.47	1485	18.68	1550	20.97						
16000	3095	1260	10.92	1250	11.83	1318	13.95	1393	16.10	1464	18.32	1529	20.65	1591	23.02						
17000	3288	1331	12.80	1312	13.55	1373	15.80	1439	18.09	1510	20.41	1574	22.79								
18000	3482	1403	14.91																		
19000	3675	1475	17.22	1376	15.47	1433	17.83	1491	20.26	1555	22.69										
20000	3869	1548	19.79	1441	17.60	1494	20.07	1548	22.63												

Maximum Motor Horsepower = 25 Maximum TEFC Motor Frame Size 324
 Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream. Performance shown is for installation type B-Free inlet, Ducted outlet.



Size

3300 sisw

Design 8520 Centrifugal BI Swingout Fans

Wheel Diameter = 33.00 in.
 Outlet Area = 6.26 sq. ft. inside
 Maximum BHP = 10.2 x (RPM/1000)³
 Tip Speed, fpm = 8.64 x RPM
 Class II RPM = 1433

Volume O.Vel		1"SP		2"SP		3"SP		4"SP		5"SP		6"SP		7"SP		8"SP		9"SP		10"SP	
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
5000	799	480	1.00																		
5500	879	492	1.11																		
6000	959	506	1.23																		
6500	1038	522	1.37	666	2.60																
7000	1118	539	1.53	676	2.79																
7500	1198	556	1.71	688	3.01																
8000	1278	575	1.91	701	3.23	816	4.79														
8500	1358	595	2.12	716	3.49	826	5.08														
9000	1438	616	2.36	731	3.76	838	5.39	937	7.19												
9500	1518	638	2.61	748	4.06	850	5.73	946	7.56												
10000	1598	660	2.89	765	4.39	864	6.09	958	7.97	1046	9.98										
10500	1678	684	3.20	782	4.75	879	6.47	970	8.39	1055	10.44										
11000	1757	708	3.53	801	5.13	894	6.89	982	8.84	1066	10.94	1146	13.16								
11500	1837	732	3.88	820	5.54	911	7.33	996	9.32	1077	11.46	1155	13.72								
12000	1917	756	4.27	840	5.98	927	7.81	1010	9.82	1090	12.00	1166	14.31	1239	16.72						
13000	2077	806	5.12	882	6.93	963	8.87	1042	10.93	1117	13.19	1190	15.58	1259	18.06	1327	20.68				
14000	2237	856	6.09	927	8.00	1000	10.06	1075	12.20	1147	14.50	1216	16.95	1283	19.55	1348	22.22	1411	25.00		
15000	2397	907	7.18	973	9.22	1041	11.38	1111	13.62	1179	15.98	1245	18.49	1309	21.14	1372	23.93	1433	26.77		
16000	2556	958	8.40	1021	10.59	1083	12.83	1148	15.19	1213	17.62	1277	20.18	1338	22.90	1398	25.73				
17000	2716	1009	9.75	1070	12.11	1128	14.44	1188	16.91	1249	19.44	1310	22.07	1369	24.84	1427	27.73				
18000	2876	1061	11.26	1120	13.78	1174	16.21	1229	18.79	1287	21.44	1345	24.14	1402	26.96						
19000	3036	1113	12.92	1170	15.63	1221	18.18	1273	20.83	1327	23.60	1382	26.41								
20000	3195	1165	14.74	1220	17.63	1270	20.32	1318	23.05	1368	25.93	1420	28.86								
22000	3515	1271	18.94	1322	22.17	1368	25.18	1412	28.13												
24000	3834	1377	23.91	1424	27.44																

Maximum Motor Horsepower = 30 Maximum TEFC Motor Frame Size 326

Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream. Performance shown is for installation type B-Free inlet, Ducted outlet.

Size

3650 sisw

Design 8520 Centrifugal BI Swingout Fans

Wheel Diameter = 36.50 in.
 Outlet Area = 7.65 sq. ft. inside
 Maximum BHP = 16.9 x (RPM/1000)³
 Tip Speed, fpm = 9.56 x RPM
 Class II RPM = 1333

Volume O.Vel		1"SP		2"SP		3"SP		4"SP		5"SP		6"SP		7"SP		8"SP		9"SP		10"SP	
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
6000	784	432	1.20																		
7000	914	450	1.42																		
8000	1045	473	1.69	603	3.20																
9000	1175	498	2.02	619	3.60																
10000	1306	526	2.42	639	4.06	740	5.98														
11000	1437	557	2.88	661	4.60	757	6.59	847	8.79												
12000	1567	589	3.40	685	5.21	776	7.27	862	9.55												
13000	1698	624	4.01	712	5.92	798	8.04	880	10.41	956	12.93										
14000	1828	659	4.70	739	6.72	821	8.90	899	11.33	973	13.94	1044	16.70								
15000	1959	695	5.49	769	7.60	847	9.88	921	12.36	992	15.05	1059	17.89	1125	20.88						
16000	2090	732	6.35	801	8.57	873	10.95	944	13.49	1012	16.25	1077	19.18	1140	22.23	1202	25.45				
17000	2220	769	7.33	834	9.65	901	12.15	969	14.75	1034	17.56	1097	20.55	1158	23.71	1217	26.98	1274	30.39		
18000	2351	807	8.38	868	10.84	930	13.44	995	16.14	1057	19.00	1118	22.06	1177	25.30	1234	28.64	1289	32.11		
19000	2481	844	9.56	903	12.15	961	14.84	1022	17.66	1082	20.58	1141	23.70	1197	26.98	1253	30.42	1306	33.96		
20000	2612	882	10.83	939	13.58	993	16.37	1050	19.30	1108	22.31	1165	25.48	1219	28.81	1273	32.32	1325	35.94		
21000	2743	920	12.22	975	15.15	1026	18.01	1080	21.06	1135	24.17	1190	27.41	1243	30.79	1294	34.36				
22000	2873	958	13.74	1012	16.83	1061	19.80	1111	22.94	1163	26.18	1215	29.49	1267	32.94	1317	36.55				
23000	3004	997	15.39	1049	18.65	1096	21.74	1143	24.97	1192	28.33	1242	31.73	1292	35.25						
24000	3134	1035	17.16	1086	20.62	1131	23.83	1176	27.12	1223	30.62	1270	34.13	1318	37.74						
25000	3265	1074	19.07	1123	22.69	1167	26.07	1210	29.46	1254	33.02	1300	36.70								
26000	3395	1113	21.14	1161	24.93	1204	28.50	1245	31.95	1286	35.60	1330	39.38								
27000	3526	1152	23.37	1198	27.34	1240	31.02	1280	34.65	1320	38.33										
28000	3657	1191	25.76	1236	29.86	1277	33.74	1316	37.48												
29000	3787	1231	28.30	1274	32.55	1315	36.66														
30000	3918	1270	31.01	1312	35.42																

Maximum Motor Horsepower = 40 Maximum TEFC Motor Frame Size 364

Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream. Performance shown is for installation type B-Free inlet, Ducted outlet.



Wheel Diameter = 4025 in.
 Outlet Area = 9.31 sq. ft. inside
 Maximum BHP = 27.5 x (RPM/1000)³
 Tip Speed, fpm = 10.5 x RPM
 Class II RPM = 1221

Size
4025 SISW

Design 8520 Centrifugal BI Swingout Fans

Volume O.Vel		1"SP		2"SP		3"SP		4"SP		5"SP		6"SP		7"SP		8"SP		9"SP		10"SP	
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
7000	752	388	1.40																		
8000	859	401	1.61																		
9000	967	416	1.85																		
10000	1074	434	2.14	549	3.99																
11000	1181	453	2.48	562	4.40																
12000	1289	474	2.88	577	4.86	670	7.18														
13000	1396	496	3.32	593	5.38	682	7.78														
14000	1504	520	3.82	610	5.96	695	8.43	774	11.15												
15000	1611	545	4.37	629	6.62	711	9.15	787	11.96	859	14.96										
16000	1718	570	5.00	649	7.35	727	9.93	800	12.82	870	15.92										
17000	1826	597	5.70	670	8.15	745	10.80	815	13.75	882	16.93	946	20.29								
18000	1933	624	6.47	692	9.02	763	11.76	831	14.77	896	18.02	958	21.46	1018	25.07						
19000	2041	651	7.32	715	9.97	783	12.81	848	15.88	910	19.19	971	22.72	1029	26.42	1085	30.24				
20000	2148	679	8.24	739	11.00	803	13.96	866	17.08	926	20.45	985	24.06	1041	27.84	1095	31.74	1149	35.82		
21000	2255	707	9.24	764	12.11	824	15.18	885	18.39	943	21.81	1000	25.48	1055	29.34	1107	33.34	1159	37.47	1209	41.78
22000	2363	735	10.32	790	13.32	846	16.50	904	19.80	961	23.28	1016	27.01	1069	30.94	1120	35.02	1171	39.24	1219	43.61
23000	2470	763	11.50	816	14.63	869	17.90	924	21.31	979	24.86	1033	28.64	1084	32.63	1134	36.79	1183	41.10		
24000	2577	791	12.75	843	16.04	893	19.40	945	22.93	998	26.55	1050	30.38	1101	34.45	1149	38.66	1197	43.06		
26000	2792	848	15.55	897	19.19	943	22.71	990	26.48	1039	30.32	1088	34.27	1135	38.41	1181	42.76				
28000	3007	905	18.77	952	22.74	994	26.50	1037	30.43	1082	34.52	1127	38.66	1172	42.94	1217	47.39				
30000	3222	962	22.41	1007	26.74	1048	30.78	1087	34.87	1128	39.16	1170	43.58	1212	48.00						
32000	3437	1020	26.54	1063	31.21	1102	35.60	1139	39.86	1176	44.31	1214	48.97								
34000	3651	1079	31.21	1120	36.19	1157	40.90	1192	45.43												
36000	3866	1138	36.38	1176	41.67	1212	46.78														
38000	4081	1196	42.12																		

Maximum Motor Horsepower = 50 Maximum TEFC Motor Frame Size 365

Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream. Performance shown is for installation type B-Free inlet, Ducted outlet.

Wheel Diameter = 44.50 in.
 Outlet Area = 11.37 sq. ft. inside
 Maximum BHP = 45.1 x (RPM/1000)³
 Tip Speed, fpm = 11.7 x RPM
 Class II RPM = 1035
 Class IIX RPM = 1100

Size
4450 SISW

Design 8520 Centrifugal BI Swingout Fans

Volume O.Vel		1"SP		2"SP		3"SP		4"SP		5"SP		6"SP		7"SP		8"SP		9"SP		10"SP	
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
8000	704	345	1.54																		
9000	792	354	1.74																		
10000	879	365	1.96																		
11000	967	377	2.22																		
12000	1055	391	2.51	493	4.61																
13000	1143	405	2.84	504	5.03																
14000	1231	420	3.24	515	5.47	597	8.05														
15000	1319	436	3.68	526	5.97	607	8.65														
16000	1407	453	4.15	539	6.51	617	9.28	688	12.26												
17000	1495	470	4.63	552	7.11	628	9.94	697	13.03												
18000	1583	488	5.15	567	7.77	640	10.66	707	13.86	770	17.22										
19000	1671	506	5.70	581	8.50	652	11.45	718	14.73	779	18.19										
20000	1759	525	6.32	597	9.31	665	12.31	729	15.65	789	19.22	845	22.93								
22000	1935	564	7.69	629	11.11	693	14.20	753	17.68	811	21.42	865	25.36	917	29.44						
24000	2111	603	9.30	663	13.04	723	16.46	780	20.01	834	23.87	886	27.99	936	32.30	983	36.66	1030	41.20		
26000	2287	644	11.14	699	15.14	754	19.09	808	22.68	860	26.69	910	30.91	958	35.36	1004	40.02	1048	44.72	1091	49.53
28000	2463	685	13.26	737	17.49	788	21.91	838	25.79	888	29.81	935	34.18	981	38.76	1026	43.54	1069	48.50		
30000	2638	727	15.67	775	20.12	823	24.85	870	29.31	917	33.39	962	37.85	1006	42.53	1049	47.45	1091	52.56		
32000	2814	769	18.40	814	23.07	859	28.04	904	33.06	948	37.49	991	41.91	1033	46.74	1074	51.75				
34000	2990	811	21.44	854	26.37	896	31.54	938	36.92	980	41.97	1021	46.54	1062	51.37						
36000	3166	854	24.85	894	29.98	934	35.39	974	41.02	1013	46.69	1052	51.68	1091	56.55						
38000	3342	898	28.63	935	34.00	973	39.64	1010	45.48	1048	51.51	1085	57.15								
40000	3518	941	32.82	976	38.38	1012	44.25	1048	50.36	1083	56.59										
42000	3694	984	37.40	1018	43.19	1052	49.32	1086	55.59												
44000	3870	1028	42.42	1060	48.45	1093	54.75														

Maximum Motor Horsepower = 60 Maximum TEFC Motor Frame Size 405

Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream. Performance shown is for installation type B-Free inlet, Ducted outlet.



Size

4900 sisw

Design 8520 Centrifugal BI Swingout Fans

Wheel Diameter = 49.00 in.
 Outlet Area = 13.78 sq. ft. inside
 Maximum BHP = 73.1 x (RPM/1000)³
 Tip Speed, fpm = 12.8 x RPM
 Class II RPM = 881
 Class IIX RPM = 1090

Volume O.Vel		1"SP		2"SP		3"SP		4"SP		5"SP		6"SP		7"SP		8"SP		9"SP		10"SP	
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
10000	725	315	1.92																		
11000	798	322	2.13																		
12000	870	331	2.35																		
13000	943	339	2.60																		
14000	1016	349	2.88	444	5.37																
15000	1088	359	3.19	451	5.78																
16000	1161	370	3.54	459	6.20																
18000	1306	394	4.37	476	7.14	550	10.36														
20000	1451	419	5.31	496	8.25	566	11.65	629	15.32												
22000	1596	445	6.34	517	9.54	583	13.07	644	16.97	700	21.04										
24000	1741	473	7.50	539	11.08	602	14.69	660	18.73	715	23.05	766	27.52								
26000	1886	502	8.84	563	12.86	622	16.54	678	20.70	731	25.23	781	29.93								
28000	2031	531	10.35	588	14.73	644	18.66	697	22.95	748	27.54	796	32.46	827	34.75	886	42.73				
30000	2176	561	12.07	614	16.72	667	21.11	718	25.41	766	30.18	813	35.22	857	40.50	900	45.97	941	51.49		
32000	2321	592	13.99	642	18.88	691	23.80	739	28.19	786	33.05	830	38.20	874	43.66	915	49.31	955	55.11	994	61.02
34000	2466	623	16.14	670	21.27	716	26.63	762	31.35	807	36.23	850	41.53	891	47.09	932	52.89	971	58.90	1009	65.02
36000	2611	654	18.52	698	23.88	742	29.58	786	34.84	828	39.77	870	45.17	910	50.84	949	56.77	987	62.92	1024	69.27
38000	2756	686	21.17	727	26.76	769	32.67	810	38.52	851	43.74	891	49.13	930	54.93	968	61.00	1005	67.24	1041	73.74
40000	2901	717	24.08	757	29.89	797	36.03	836	42.34	875	48.07	913	53.51	951	59.35	988	65.57	1023	71.94	1058	78.53
42000	3047	749	27.27	787	33.32	825	39.70	862	46.33	899	52.64	936	58.38	972	64.19	1008	70.50	1043	77.02	1076	83.72
44000	3192	782	30.76	817	37.02	853	43.62	889	50.50	925	57.41	960	63.61	995	69.53	1029	75.81	1063	82.45		
48000	3482	846	38.71	879	45.41	912	52.45	945	59.80	977	67.31	1010	74.83	1042	81.58	1074	87.98				
52000	3772	912	47.98	942	55.12	972	62.65	1002	70.42	1032	78.39	1062	86.60								
56000	4062	977	58.73	1005	66.33	1033	74.29	1061	82.50	1089	90.93										
60000	4352	1043	71.08	1069	79.09																
Maximum Motor Horsepower = 50																Maximum TEFC Motor Frame Size 365					
Maximum Motor Horsepower = 100																Maximum TEFC Motor Frame Size 444					

Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream. Performance shown is for installation type B-Free inlet, Ducted outlet.

Size

5425 sisw

Design 8520 Centrifugal BI Swingout Fans

Wheel Diameter = 54.25 in.
 Outlet Area = 16.91 sq. ft. inside
 Maximum BHP = 122 x (RPM/1000)³
 Tip Speed, fpm = 14.2 x RPM
 Class II RPM = 789
 Class IIX RPM = 936

Volume O.Vel		1"SP		2"SP		3"SP		4"SP		5"SP		6"SP		7"SP		8"SP		9"SP		10"SP	
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
12000	710	283	2.30																		
14000	828	294	2.72																		
16000	947	307	3.20																		
18000	1065	322	3.78	406	6.91																
20000	1184	338	4.48	417	7.77																
22000	1302	355	5.33	430	8.72	496	12.66														
24000	1420	373	6.27	444	9.80	508	13.93	565	18.38												
26000	1539	393	7.25	459	11.04	520	15.30	576	19.99	628	24.90										
28000	1657	413	8.34	475	12.44	533	16.82	588	21.68	638	26.80										
30000	1775	434	9.56	492	14.08	548	18.53	600	23.52	649	28.87	695	34.41								
32000	1894	455	10.92	510	15.87	563	20.41	613	25.51	661	31.06	706	36.83	748	42.77						
34000	2012	476	12.43	528	17.76	579	22.50	627	27.74	673	33.37	717	39.37	759	45.56	798	51.89				
36000	2130	499	14.11	547	19.73	596	24.88	642	30.17	686	35.92	729	42.06	770	48.53	809	55.02	846	61.76		
38000	2249	521	15.93	567	21.79	613	27.48	658	32.81	701	38.70	742	44.95	782	51.57	820	58.35	856	65.26	892	72.37
40000	2367	543	17.95	588	24.03	631	30.23	674	35.74	716	41.71	756	48.10	794	54.80	832	61.83	867	68.97	902	76.26
42000	2485	566	20.15	608	26.48	650	33.09	691	38.99	731	44.96	770	51.49	807	58.28	844	65.46	879	72.83	913	80.36
44000	2604	589	22.54	629	29.09	669	36.05	708	42.48	747	48.51	785	55.12	821	62.07	857	69.32	891	76.86	924	84.63
46000	2722	613	25.16	651	31.95	689	39.11	727	46.14	764	52.41	800	59.01	836	66.13	870	73.47	904	81.11		
48000	2841	636	27.98	672	34.98	709	42.40	745	49.97	781	56.65	816	63.25	851	70.47	884	77.93	917	85.67		
52000	3077	683	34.30	717	41.77	750	49.64	784	57.83	817	65.73	850	72.91	882	80.01	914	87.71				
56000	3314	731	41.62	762	49.53	793	57.88	824	66.50	855	75.34	886	83.63	916	91.26						
60000	3551	778	49.99	807	58.32	836	67.11	865	76.22	894	85.59	923	94.98								
64000	3787	827	59.46	854	68.25	881	77.50	908	87.07	935	96.86										
68000	4024	875	70.15	900	79.41	926	89.08														
72000	4261	923	82.13																		
Maximum Motor Horsepower = 60																Maximum TEFC Motor Frame Size 405					
Maximum Motor Horsepower = 100																Maximum TEFC Motor Frame Size 444					

Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream. Performance shown is for installation type B-Free inlet, Ducted outlet.

Wheel Diameter = 60.00 in.
 Outlet Area = 20.66 sq. ft. inside
 Maximum BHP = 201 x (RPM/1000)³
 Tip Speed, fpm = 15.7 x RPM
 Class II RPM = 890

Size
6000 SISW

Design 8520 Centrifugal BI Swingout Fans

Volume O.Vel		1"SP		2"SP		3"SP		4"SP		5"SP		6"SP		7"SP		8"SP		9"SP		10"SP	
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
16000	774	261	3.1																		
18000	871	270	3.5																		
20000	968	280	4.0																		
22000	1064	291	4.6	367	8.5																
24000	1161	302	5.3	375	9.3																
26000	1258	315	6.1	384	10.2	445	15.0														
28000	1355	328	7.0	394	11.2	453	16.2														
30000	1451	342	8.0	405	12.4	462	17.5	514	23.0												
32000	1548	356	9.0	416	13.6	471	18.9	522	24.6	569	30.6										
34000	1645	371	10.1	428	15.0	481	20.4	530	26.3	576	32.5										
36000	1742	387	11.3	440	16.6	491	22.0	539	28.1	584	34.6	626	41.3								
38000	1838	402	12.6	453	18.4	502	23.9	549	30.0	592	36.7	633	43.6	673	50.9						
40000	1935	418	14.0	467	20.2	514	25.8	559	32.1	601	38.9	641	46.1	680	53.5						
44000	2129	450	17.2	495	24.1	538	30.4	580	36.9	621	43.9	659	51.4	696	59.3	731	67.2	765	75.5		
48000	2322	484	21.0	524	28.3	564	35.7	604	42.3	642	49.6	678	57.3	714	65.5	748	74.0	780	82.7	812	91.5
52000	2516	517	25.4	555	33.2	592	41.4	629	48.8	665	56.1	700	64.1	733	72.4	766	81.3	798	90.4	828	99.6
56000	2709	552	30.4	586	38.7	621	47.4	655	55.9	689	63.6	722	71.6	754	80.4	785	89.3	816	98.6	845	108.4
60000	2903	586	36.1	618	44.9	651	54.1	683	63.5	715	72.1	746	80.3	777	89.0	807	98.4	836	107.9	864	117.8
64000	3096	621	42.6	651	51.8	681	61.5	712	71.5	741	81.3	771	90.2	800	98.9	829	108.3	857	118.2	884	128.4
68000	3290	656	49.9	684	59.6	713	69.7	741	80.2	769	90.9	797	101.0	825	110.1	852	119.4	879	129.4		
72000	3483	691	58.1	718	68.1	745	78.7	772	89.7	798	101.0	825	112.3	851	122.4	877	132.0				
76000	3677	727	67.1	752	77.6	778	88.7	803	100.1	828	111.9	853	123.9	878	135.3						
80000	3870	763	77.1	786	88.1	810	99.6	834	111.5	858	123.7	882	136.2								
85000	4112	807	91.1	830	102.6	852	114.7	875	127.1												
90000	4354	852	106.7	873	118.7																

Maximum Motor Horsepower = 150 Maximum TEFC Motor Frame Size 447

Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream. Performance shown is for installation type B-Free inlet, Ducted outlet.

Wheel Diameter = 66.00 in.
 Outlet Area = 25.01 sq. ft. inside
 Maximum BHP = 324 x (RPM/1000)³
 Tip Speed, fpm = 17.3 x RPM
 Class II RPM = 810

Size
6600 SISW

Design 8520 Centrifugal BI Swingout Fans

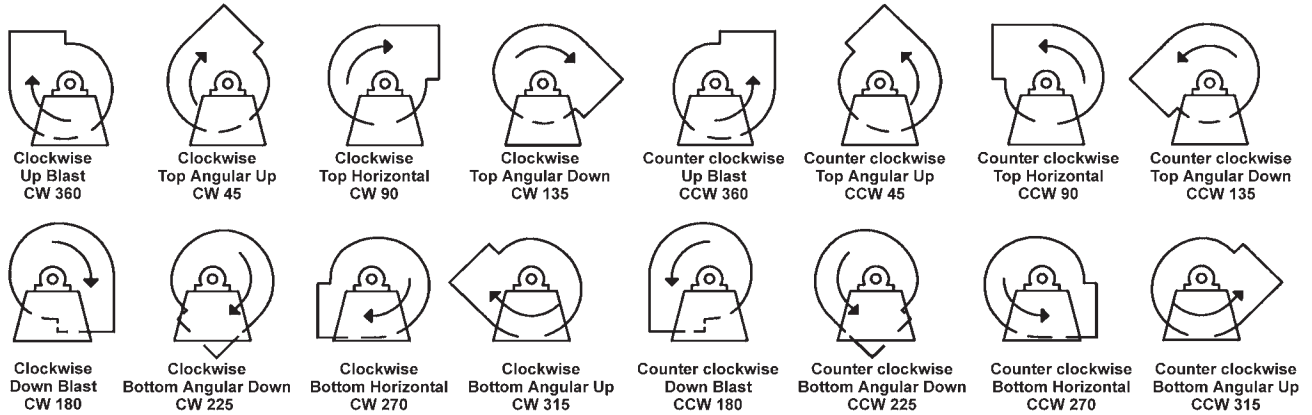
Volume O.Vel		1"SP		2"SP		3"SP		4"SP		5"SP		6"SP		7"SP		8"SP		9"SP		10"SP	
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
18000	720	233	3.5																		
20000	800	240	3.9																		
22000	880	246	4.3																		
24000	960	254	4.8																		
26000	1040	262	5.4	331	10.0																
28000	1119	270	6.0	338	10.8																
30000	1199	279	6.8	344	11.7	401	17.3														
32000	1279	289	7.6	351	12.6	406	18.4														
34000	1359	299	8.5	359	13.7	412	19.6														
36000	1439	309	9.5	367	14.8	419	20.9	466	27.6												
38000	1519	320	10.5	375	16.0	426	22.3	472	29.2												
40000	1599	331	11.5	384	17.4	433	23.8	478	30.9	520	38.2										
44000	1759	354	13.9	402	20.5	449	27.1	492	34.4	532	42.3	570	50.4								
48000	1919	378	16.6	422	24.1	465	30.8	506	38.5	545	46.7	582	55.3	617	64.2						
52000	2079	402	19.8	443	27.9	484	35.2	522	43.0	560	51.5	595	60.5	629	69.8	661	79.5	692	89.3		
56000	2239	427	23.3	465	32.0	503	40.3	540	48.2	575	56.9	609	66.2	642	76.0	673	85.9	703	96.2	732	106.7
60000	2399	452	27.4	487	36.5	523	45.9	558	54.1	592	63.0	624	72.5	656	82.4	686	93.0	716	103.7	744	114.5
65000	2599	484	33.2	517	42.9	549	53.2	582	62.6	614	71.6	645	81.3	675	91.6	704	102.3	732	113.5	759	125.0
70000	2799	516	39.9	546	50.1	577	61.0	607	71.9	637	81.6	666	91.3	695	101.9	723	113.0	750	124.4	776	136.4
75000	2999	548	47.5	577	58.4	605	69.8	634	81.6	662	92.8	689	102.9	717	113.5	743	124.8	769	136.6	794	148.7
80000	3199	581	56.1	608	67.5	635	79.5	661	92.0	687	104.6	714	115.9	739	126.6	765	138.0	790	150.1		
85000	3398	615	65.8	639	77.8	664	90.3	689	103.4	714	116.9	739	129.7	763	141.4	787	152.9				
90000	3598	648	76.7	671	89.1	695	102.3	718	115.9	742	130.0	765	144.0	788	157.3						
100000	3998	715	102.0	736	115.6	757	129.9	778	144.6	799	159.8										
110000	4398	782	132.8	801	147.4																

Maximum Motor Horsepower = 200 Maximum TEFC Motor Frame Size 447

Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream. Performance shown is for installation type B-Free inlet, Ducted outlet.



Designations for Rotation and Discharge of Centrifugal Fans



Notes:

- 1) Direction of rotation is determined from the drive side of the fan.
- 2) On single inlet fans, the drive side is always considered as the side opposite the fan inlet.
- 3) On double inlet fans with drives on both sides, the drive side is that with the higher powered drive unit.
- 4) Direction of discharge is determined in accordance with the diagrams. Angle of discharge is referred to the vertical axis of the fan and designated in degrees from such standard reference axis. Angle of discharge may be any intermediate angle as required.
- 5) For a fan inverted for ceiling suspension, or side wall mounting, the direction of rotation and discharge is determined when the fan is resting on the floor.

Sound Data

Sound data was obtained in accordance with AMCA Standard 300, Reverberant Room Method for Sound Testing of Fans.

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



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