



**SINGLE WIDTH
AIRFOIL FANS**



AN ISO 9001 COMPANY

CHICAGO BLOWER CORPORATION

High Volume High Efficiency Single Width Airfoil Fans



The heart of Chicago's Design 51 centrifugal fan is the airfoil wheel, the most efficient type for clean air applications. This fan has an enviable reputation for performance and reliability in a multitude of applications, including industrial supply or exhaust systems. The Design 51 single-width is a rugged fan built to Chicago's industrial level of quality and long-term dependability.

Single-width fans are offered in Sizes 135 to 890, with pressures to 20" WG and volumes to 220,000 CFM. Construction flexibility is one of the strengths of the Design 51, available in several AMCA arrangements, including 1, 3, 8 and 9 to meet any installation requirement.

Chicago also offers an alternate Design 51RA fan series especially suited for lower pressure applications. Performance of the two designs are compared on page 6. For special applications or requirements, contact your Chicago Blower Sales Engineer, an experienced and knowledgeable fan specialist who will help guide you through your requirements for a custom engineered fan.

Chicago Blower Corporation Design 51 Airfoil Fan ratings shown herein are based on tests and procedures performed in accordance with AMCA Publication 211.

All Design 51 Airfoil Fans comply with the recommendations in AMCA Standard 99-2408-69 "operating limits for single width centrifugal fans" and AMCA Standard 99-2402-82 which details maximum wheel diameters and outlet areas.



Airfoil Wheel Performance

Widely recognized for design efficiency and integrity, Chicago's Design 51 airfoil wheel has ideal characteristics for variable air volume systems. With a smooth, steep pressure curve, major changes in pressure will cause only minor changes in volume. The broad high-efficiency operating range offers extensive selections and capabilities within each fan size.



The fan's deep spun inlet and hyperbolic wheel cone plus generous housing proportions provide a smooth stable air flow over the entire performance range. Precision balancing assures quieter vibration-free operation that adds to the overall reliability and performance of Chicago's Design 51 airfoil fans.

Structural Reliability

Rugged wheels of heavy gauge steel and welded construction provide maximum integrity and long service. Material types and gauges are determined by test verified finite element analysis. Wheels are fitted with true hollow airfoil blades with weep holes to prevent moisture build-up within the blade. All blades are continuously welded. Blades for all Class III and larger Class II sizes have reinforcing ribs.

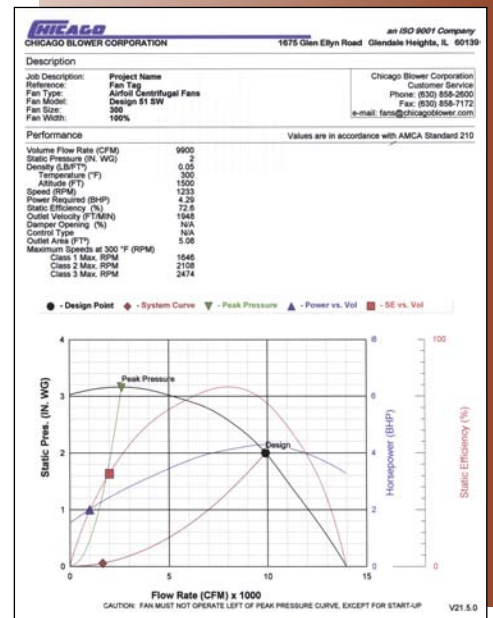
Housings are constructed of continuously welded heavy gauge steel with rigid bearing bases. Stiff bracing is added to resist any possible distortion caused by sudden air flow variations. The precision shafts of the Design 51 fans are made from the finest select, turned, ground and polished SAE 1040-1045 steel. Heavy-duty bearings are self-alignable ball or roller type, computer selected for a minimum of 75,000 hours average life at maximum class speeds and horsepower. Bearing life is extended by extremely close tolerance fits.



Refer to
 Chicago's
 fan.net for
 performance,
 fan curves and
 sound data.

For software
 and assistance,
 contact your
 local Chicago
 Blower Sales
 Engineer.

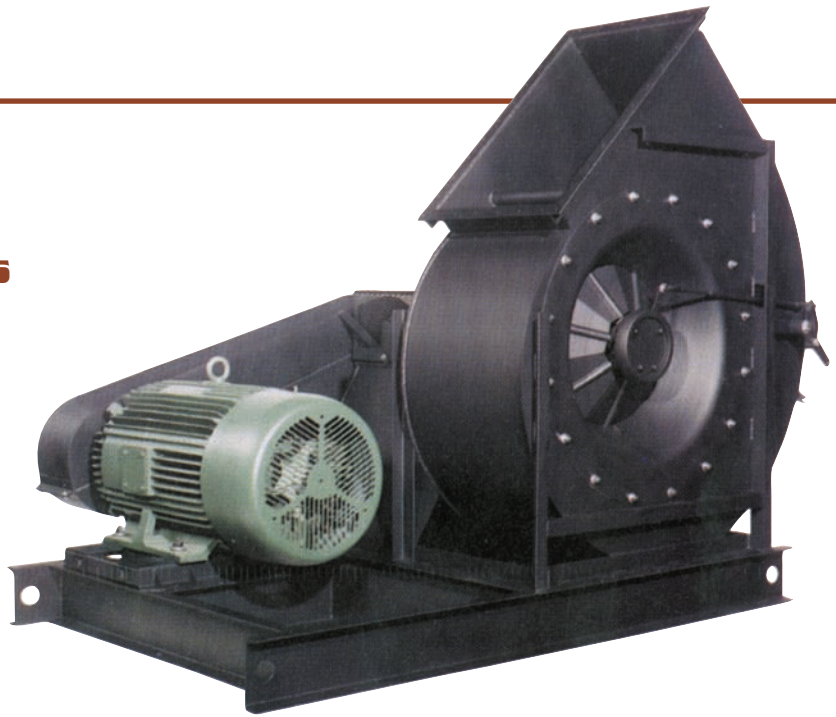
**Chicago's
 fan.net
 Selection
 Program**



Performance and Convenience Options

Inlet Volume Control

The Inlet Volume Control (IVC) provides precise air control and more efficient performance at partial loads. Adjustable guide vanes pre-spin the incoming air in the same rotation as the wheel to produce the desired volume of air at the exact pressure. Vanes are mounted entirely within the inlet cone. The IVC is suitable for manual or automatic operation.



Flanged/ Slip Inlet

A bolt-on accessory that facilitates the attachment of flexible connectors, dampers or ductwork to the fan inlet.



Flanged Outlet

Continuously welded angle facilitates the attachment of flexible connectors, dampers or ductwork to the fan discharge.

Inlet/Outlet Companion Flanges

Structural angle assembly matches fan inlet or outlet flanges and allows fastening of ductwork for a flange-to-flange connection. Needed with flanged inlet or outlet.

Inlet Screen

Welded steel wire screen mounts within the inlet cone or outside the inlet vanes when furnished with Inlet Volume Control.

Shaft Seal

The compressed sheet seal mounted between steel plates is designed to reduce leakage through the drive side shaft opening. Shaft seals are not gas tight.

Shaft Cooler and Guard

Cast aluminum cooling wheel split for installation with guard. Required for temperatures above 300°F.

Housing Drain

A half coupling is welded to the lowest point of the housing. Available with or without drain plug.

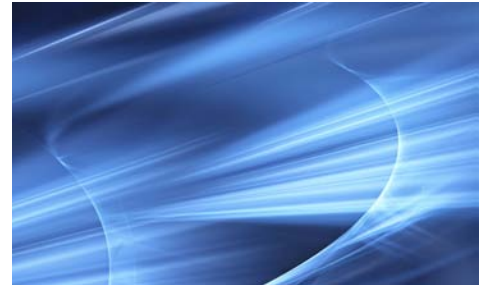
Adjustable Motor Base

Simplifies belt tension adjustments. Base is mounted on the fan's base side (A/9) or on a unitary base (A/9H).

Outlet Dampers

Dampers offer an economical alternative to IVCs. However, they require substantially more horsepower at reduced air volume. Dampers for all fan classes have double thickness airfoil blades, and are available with parallel or opposed blade rotating louvres.

Dampers have punched flanges on both ends to simplify fan and duct connections. Matching punched flanged outlet is required for mounting.



Unitary Base

Fan and adjustable motor base are welded onto a unitary base of continuously welded structural steel channel. Vibration isolators also available. (Refer to page 30 for base dimensions.)

Shaft and Bearing Guard

The expanded metal guard encloses the shaft and bearings from the housing side to just beyond the outboard bearing. Extended grease fittings are recommended.

Belt Guard

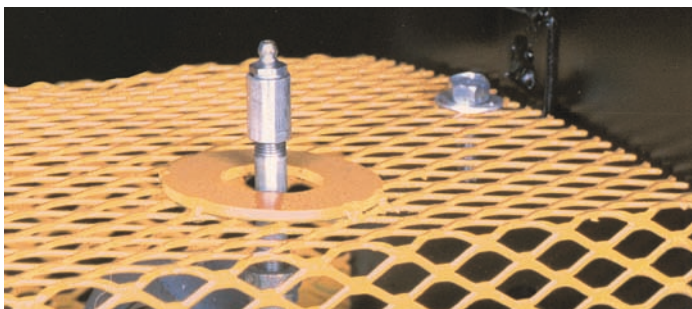
Three sides are fully enclosed with expanded metal on the fourth side for ventilation and visual inspection. Easily removed for drive servicing.

Access Doors

The flush mounted door features quick-locking compression clamp. Neoprene gasket to 300°F and asbestos-free gasket to 800°F. Plug type has a round door raised 4" off the scroll to provide adequate clearance for insulation. Includes asbestos-free gasket.

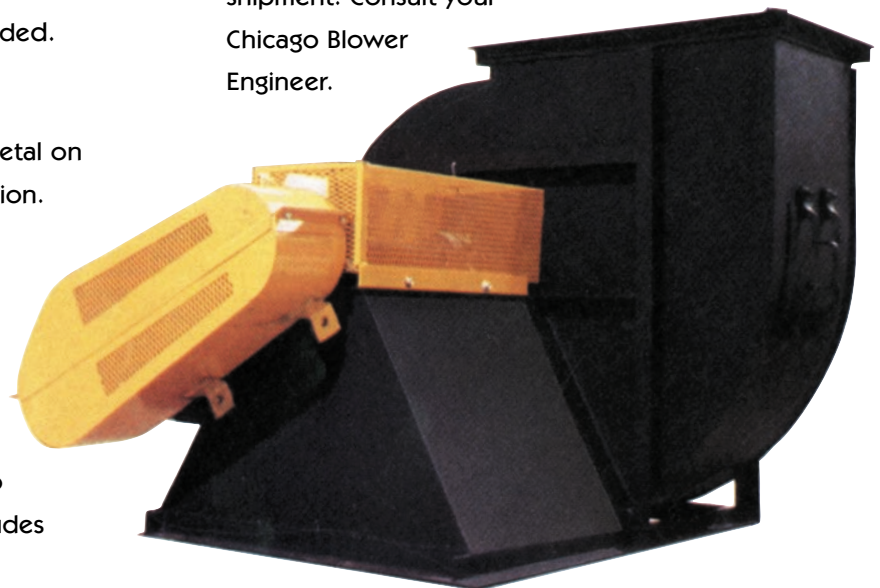
Extended Grease Fittings

Fittings allow for external lubrication without removal of shaft and bearing guard. Recommended for all continuous operation installations.



Split Housings

To facilitate wheel removal, fan sizes 135 through 660 can be furnished with horizontal split housings. Sizes 730 to 890 are standard with splits. Splits are caulked and bolted when the fan is shipped assembled. Traffic routing may require knocked-down shipment. Consult your Chicago Blower Engineer.



Spark Resistant Construction

AMCA Type C construction substitutes an aluminum inlet cone and adds a drive side aluminum buffing tube between the wheel, shaft and housing. Used when trace amounts of solids are in the airstream. AMCA Type A and B also available upon request.

Special Paint and Coatings

Numerous paint and corrosion resistant coatings are available to meet the most stringent applications. Special materials, such as aluminum or stainless steel, can be provided for most duties.

Selecting Fans at Non-Standard Conditions

Fan capacity tables are based on the fan handling standard air at 70°F and sea level. For operating conditions other than these, correct the HP of the fan and check the speed derating limits.

EXAMPLE:

Select a fan to handle 5500 CFM at 2" SP at 400°F and at 2000 feet above sea level.

1. Refer to Table 1. At 2000 feet altitude and 400° F, the correction factor is 1.75.
2. Corrected SP is $1.75 \times 2" = 3.5"$ SP at 70°F and sea level.
3. Using the fan rating tables, selection of the proper size fan is now based on 5500 CFM at 3.5" SP. These specifications indicate that one selection available is the size 222 Class I fan which shows a performance of 5500 CFM at 3.5" SP, requiring 4.19 BHP at 1749 RPM.
4. To correct the BHP, divide 4.19 by 1.75 = 2.39 BHP, which is the corrected BHP at 400°F and 2000 feet altitude.
5. Verify the wheel and shaft maximum speeds using Table II and Table III.
 - a. Multiply the class maximum wheel speed from Table II by the Class I Wheel Deration Factor from Table III. The wheel maximum speed @ 400°F is $3225 \text{ RPM} \times .86 = 2774 \text{ RPM}$. Then multiply the maximum shaft speed from Table II by the Shaft Deration Factor from Table III. The shaft maximum speed @ 400°F is $2205 \times .98 = 2161$. Thus, the maximum allowable fan speed is 2161 RPM.
 - b. Check the above maximum allowable fan speed against the selected fan RPM. Since the fan operating speed of 1749 RPM is within safe limits of the maximum allowable of 2161 RPM, the size 222 Class I fan will deliver 5500 CFM at 2" SP, 400°F and 2000 feet altitude requiring 2.39 HP.

TABLE I Temperature and Altitude Correction

AIR TEMP (F°)	ALTITUDE (feet) with BAROMETRIC PRESSURE (In. Hg)									
	0' 29.92	500' 29.38	1000' 28.86	1500' 28.33	2000' 27.82	2500' 27.31	3000' 26.82	3500' 26.32	4000' 25.84	5000' 24.90
-15	.84	.86	.87	.89	.90	.92	.94	.95	.97	1.01
0	.87	.88	.90	.92	.93	.95	.97	.99	1.00	1.04
70	1.00	1.02	1.04	1.06	1.08	1.10	1.12	1.14	1.16	1.20
100	1.06	1.08	1.10	1.12	1.14	1.16	1.18	1.20	1.22	1.27
150	1.15	1.17	1.19	1.22	1.24	1.26	1.28	1.31	1.33	1.38
200	1.25	1.27	1.29	1.32	1.34	1.36	1.39	1.42	1.44	1.50
250	1.34	1.36	1.39	1.41	1.44	1.47	1.49	1.52	1.55	1.61
300	1.43	1.46	1.49	1.51	1.54	1.57	1.60	1.63	1.66	1.72
350	1.53	1.56	1.58	1.61	1.64	1.67	1.70	1.74	1.77	1.84
400	1.62	1.65	1.68	1.71	1.75	1.78	1.81	1.84	1.88	1.95
500	1.81	1.84	1.88	1.91	1.95	1.98	2.02	2.06	2.10	2.18
600	2.00	2.04	2.07	2.11	2.15	2.19	2.23	2.27	2.32	2.40
650	2.09	2.13	2.17	2.21	2.25	2.29	2.34	2.38	2.43	2.52
700	2.19	2.23	2.27	2.31	2.35	2.40	2.44	2.49	2.53	2.63
800	2.38	2.42	2.48	2.51	2.56	2.60	2.65	2.70	2.75	2.86

Correction factors for temperature (F) and altitude (above sea level): standard air = .075 lbs. per cubic foot at sea level, 29.92" Hg barometric pressure and 70° F

TABLE II Maximum RPM at 70°F

FAN SIZE	CLASS I		CLASS II		CLASS III	
	Max. Wheel	Max. Shaft	Max. Wheel	Max. Shaft	Max. Wheel	Max. Shaft
135	5288	3542	5288	4607	6207	R/F
150	4657	3246	4657	4221	6134	R/F
165	4083	2886	4083	3753	5408	4721
182	4071	2653	4071	3437	4778	4323
200	3592	2355	3592	3063	4216	3853
222	3225	2205	3225	2868	3786	3607
245	2852	1991	2852	2590	3347	3258
270	2638	1809	2638	2353	3096	2959
300	2359	1663	2359	2163	2768	2720
330	2089	1433	2089	1863	2452	2344
365	1885	1318	1885	1715	2213	2157
402	1703	1141	1703	1483	1999	1866
445	1145	1043	1493	1360	1709	1706
490	1027	939	1312	1224	1558	1535
542	938	858	1228	1120	1418	1404
600	839	775	1078	1011	1403	1268
660	776	695	1052	906	1235	1136
730	699	637	924	831	R/F	R/F
807	626	576	809	751	R/F	R/F
890	564	518	718	675	R/F	R/F

Note: For derating max. speeds due to high temperature, not operational capabilities. R/F: Refer to Factory.

TABLE III Temperature/Speed Deration

Temp./Deration Factors		
Temp. (F°)	Steel Wheel	Steel Shaft
70	1.00	1.00
100	.99	1.00
200	.93	1.00
300	.89	.99
350	.88	.98
400	.86	.98
450	.84	.97
500	.82	.97
550	.81	.96
600	.79	.96
650	.78	.95
700	.77	.94
800	.68	.93

Chicago's RA Design 51

When working with lower pressure, typically below 5" SP, and space and initial cost are primary considerations, the alternate Design 51RA fan in smaller sizes may offer a better selection. The RA fan was specifically engineered for both improved efficiency and lower sound levels in low pressure, high volume applications. A typical comparison of the two designs follows.

EXAMPLE:

Size 300 fan with 15,900 CFM at 1-1/2" SP, 70°F and sea level.

Standard Design 51 = 1529 RPM at 10.78 BHP

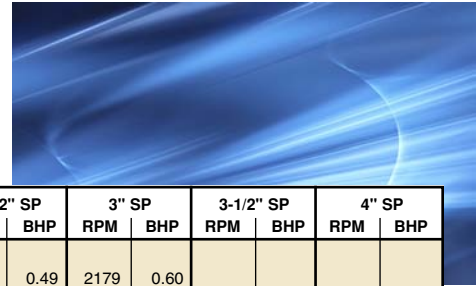
RA Design 51 = 1376 RPM at 8.7 BHP

CHICAGO BLOWER SINGLE WIDTH AIRFOIL

SIZE
135

13-7/32 In. Wheel Diameter
1.05 Sq. Ft. Outlet Area
Peak BHP = 0.068 (RPM ÷ 1000)³
Tip Speed (fpm) = 3.46 x RPM

CLASS I 3542 RPM
CLASS II 4607 RPM
CLASS III Consult Factory



CFM	OV FPM	1/4" SP		1/2" SP		3/4" SP		1" SP		1-1/2" SP		2" SP		2-1/2" SP		3" SP		3-1/2" SP		4" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
600	571	795	0.03	964	0.06	1120	0.09	1268	0.12												
950	905	1030	0.07	1187	0.11	1317	0.15	1423	0.20	1625	0.28	1820	0.38	2006	0.49	2179	0.60				
1300	1238	1317	0.14	1423	0.19	1535	0.25	1652	0.31	1833	0.42	1985	0.53	2133	0.65	2279	0.78	2422	0.91	2561	1.05
1650	1571	1617	0.25	1705	0.31	1788	0.38	1872	0.44	2058	0.59	2217	0.74	2347	0.88	2467	1.02	2584	1.17	2700	1.32
2000	1905	1924	0.41	2000	0.49	2071	0.56	2139	0.64	2278	0.80	2432	0.98	2578	1.16	2701	1.33	2809	1.50	2911	1.68
2350	2238	2235	0.63	2301	0.72	2364	0.81	2425	0.90	2542	1.08	2660	1.27	2788	1.48	2920	1.70	3040	1.91	3146	2.11
2700	2571	2550	0.93	2608	1.03	2664	1.13	2719	1.23	2823	1.44	2924	1.65	3026	1.87	3134	2.10	3250	2.34	3364	2.59
3050	2905	2865	1.31	2918	1.42	2968	1.53	3018	1.65	3113	1.88	3204	2.11	3294	2.35	3384	2.60	3477	2.85	3576	3.12
3400	3238	3183	1.78	3230	1.91	3276	2.03	3321	2.16	3409	2.41	3493	2.67	3575	2.93	3655	3.20	3735	3.47	3817	3.75
3750	3571	3501	2.36	3544	2.5	3586	2.64	3628	2.78	3709	3.06	3787	3.34	3863	3.62	3936	3.91	4009	4.21	4082	4.50
4100	3905	3820	3.06	3859	3.21	3898	3.36	3937	3.51	4012	3.81	4085	4.12	4156	4.43	4225	4.74	4292	5.06	4359	5.38
4450	4238	4139	3.88	4176	4.04	4212	4.21	4248	4.37	4318	4.70	4386	5.03	4452	5.37	4517	5.70	4581	6.04	4644	6.38
4800	4571	4459	4.84	4493	5.02	4527	5.19	4560	5.37	4626	5.72	4690	6.08	4752	6.44	4814	6.80	4874	7.16	4933	7.53
5150	4905	4780	5.95	4811	6.14	4843	6.33	4874	6.52	4936	6.89	4996	7.28	5055	7.66	5113	8.05	5170	8.43	5226	8.82
5500	5238	5100	7.22	5130	7.42	5160	7.62	5189	7.82	5247	8.23	5304	8.63	5360	9.04	5415	9.45	5469	9.86	5522	10.28
5850	5571	5421	8.66	5449	8.88	5477	9.09	5505	9.30	5560	9.73	5613	10.16	5666	10.59	5719	11.03	5770	11.47		

CFM	OV FPM	5" SP		6" SP		7" SP		8" SP		10" SP		12" SP		14" SP		16" SP		18" SP		20" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1500	1429	2877	1.51	3114	1.85	3338	2.20														
1850	1762	3022	1.85	3227	2.22	3429	2.60	3626	3.00	4001	3.85										
2200	2095	3231	2.29	3407	2.68	3581	3.09	3754	3.51	4094	4.42	4423	5.38	4736	6.39	5033	7.46				
2550	2429	3465	2.82	3632	3.25	3788	3.69	3940	4.15	4240	5.10	4537	6.11	4827	7.19	5109	8.31	5382	9.47	5644	10.68
2900	2762	3690	3.41	3867	3.92	4021	4.41	4164	4.90	4434	5.92	4699	6.98	4962	8.11	5221	9.28	5476	10.50	5726	11.77
3250	3095	3898	4.05	4086	4.64	4253	5.21	4400	5.77	4661	6.88	4903	8.00	5140	9.18	5376	10.40	5609	11.68		
3600	3429	4124	4.77	4294	5.41	4467	6.07	4626	6.71	4897	7.96	5133	9.18	5353	10.42	5568	11.70	5781	13.03		
3950	3762	4378	5.62	4522	6.29	4677	6.99	4835	7.71	5125	9.13	5368	10.48	5585	11.82	5789	13.18				
4300	4095	4648	6.61	4775	7.31	4908	8.03	5048	8.78	5337	10.35	5598	11.88								
4650	4429	4927	7.74	5044	8.47	5162	9.23	5284	10.01	5546	11.65										
5000	4762	5211	9.01	5322	9.79	5430	10.59	5540	11.39	5770	13.08										
5350	5095	5501	10.45	5605	11.27	5707	12.11														

CHICAGO BLOWER SINGLE WIDTH AIRFOIL

SIZE
135 RA

13-7/32 In. Wheel Diameter
1.05 Sq. Ft. Outlet Area
Peak BHP = 0.076 (RPM ÷ 1000)³
Tip Speed (fpm) = 3.46 x RPM

CLASS I 3542 RPM
CLASS II 4607 RPM
CLASS III Consult Factory

CFM	OV FPM	1/4" SP		1/2" SP		3/4" SP		1" SP		1-1/2" SP		2" SP		2-1/2" SP		3" SP		3-1/2" SP		4" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
600	571	783	0.04	967	0.07	1123	0.10	1264	0.13												
950	905	1024	0.07	1173	0.12	1300	0.17	1418	0.22	1634	0.32	1821	0.42	1998	0.53						
1300	1238	1294	0.14	1417	0.20	1529	0.26	1630	0.32	1812	0.45	1983	0.60	2143	0.74	2290	0.88	2427	1.02	2559	1.15
1650	1571	1580	0.24	1682	0.31	1778	0.39	1868	0.47	2035	0.63	2184	0.79	2323	0.96	2459	1.14	2589	1.32	2714	1.51
2000	1905	1875	0.38	1961	0.47	2043	0.56	2123	0.66	2274	0.85	2413	1.04	2541	1.23	2661	1.43	2777	1.63	2890	1.84
2350	2238	2174	0.58	2249	0.69	2321	0.79	2391	0.90	2526	1.12	2654	1.34	2775	1.57	2888	1.79	2996	2.02	3099	2.25
2700	2571	2477	0.85	2543	0.97	2606	1.09	2669	1.21	2790	1.46	2907	1.71	3019	1.96	3126	2.22	3228	2.48	3326	2.74
3050	2905	2782	1.19	2840	1.32	2898	1.46	2954	1.59	3064	1.87	3170	2.15	3273	2.43	3373	2.72	3470	3.01	3563	3.30
3400	3238	3089	1.61	3141	1.76	3193	1.91	3244	2.06	3344	2.36	3441	2.67	3537	2.98	3630	3.30	3720	3.62	3808	3.94
3750	3571	3396	2.13	3444	2.29	3491	2.45	3538	2.62	3630	2.95	3719	3.29	3807	3.63	3894	3.97	3978	4.32	4061	4.67
4100	3905	3704	2.74	3748	2.92	3792	3.10	3835	3.28	3919	3.64	4003	4.01	4084	4.38	4165	4.75	4244	5.13	4321	5.51
4450	4238	4013	3.47	4054	3.67	4094	3.86	4134	4.05	4213	4.44	4290	4.84	4366	5.24	4441	5.64	4515	6.05	4588	6.46
4800	4571	4323	4.33	4361	4.53	4398	4.74	4435	4.95	4508	5.37	4581	5.79	4652	6.22	4722	6.65	4792	7.09	4860	7.53
5150	4905	4633	5.31	4668	5.53	4703	5.75	4738	5.98	4806	6.42	4874	6.88	4941	7.34	5007	7.80	5072	8.26	5137	8.73
5500	5238	4943	6.43	4976	6.67	5009	6.91	5041	7.14	5106	7.62	5170	8.11	5233	8.59	5295	9.08	5357	9.57	5418	10.07
5850	5571	5253	7.71	5284	7.96	5315	8.21	5346	8.46	5407	8.97	5467	9.48	5527	10.00	5586	10.52	5645	11.04	5703	11.56

CFM	OV FPM	5" SP		6" SP		7" SP		8" SP		10" SP		12" SP		14" SP		16" SP		18" SP		20" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1500	1429	2879	1.67	3103	2.00																
1850	1762	3037	2.11	3244	2.52	3438	2.90	3623	3.29	4104	4.92	4414	5.85								
2200	2095	3211	2.53	3410	3.02	3598	3.52	3776	4.01	4104	4.92	4414	5.85								
2550	2429	3416	3.02	3596	3.54	3771	4.10	3942	4.67	4263	5.82	4558	6.91	4834	7.97	5100	9.04	5362	10.19		
2900	2762	3641	3.61	3809	4.18	3970	4.76	4127	5.36	4432	6.64	4720	7.96	4990	9.24	5243	10.45	5485	11.65	5719	12.87
3250	3095	3874	4.28	4036	4.90	4189	5.54	4336	6.18	4618	7.51	4892	8.94	5154	10.41	5404	11.88	5641	13.29		
3600	3429	4115	5.03	4271	5.72	4419	6.41	4560	7.11	4827	8.53	5081	10.00	5330	11.57	5572	13.19				
3950	3762	4364	5.88	4512	6.63	4655	7.38	4792	8.15	5050	9.68	5292	11.23	5524	12.84	5752	14.54				
4300	4095	4619	6.83	4761	7.64	4897	8.46	5029	9.28	5280	10.94	5514	12.61	5736	14.30						
4650	4429	4881	7.91	5016	8.78	5146	9.65	5273	10.53	5515	12.31	5744	14.11								
5000	4762	5149	9.11	5276	10.04	5401	10.97	5522	11.91	5756	13.81										

CHICAGO BLOWER SINGLE WIDTH AIRFOIL

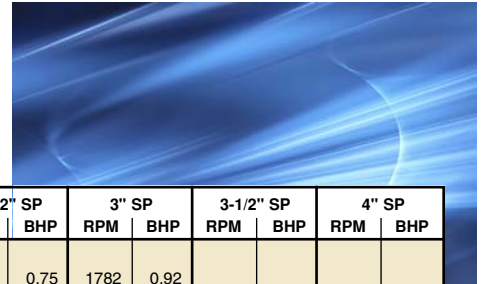
SIZE
165

16-3/16 In. Wheel Diameter
1.57 Sq. Ft. Outlet Area
Peak BHP = 0.187 (RPM ÷ 1000)³
Tip Speed (fpm) = 4.24 x RPM

CLASS I 2886 RPM

CLASS II 3753 RPM

CLASS III 4721 RPM



CFM	OV FPM	1/4" SP		1/2" SP		3/4" SP		1" SP		1-1/2" SP		2" SP		2-1/2" SP		3" SP		3-1/2" SP		4" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
900	573	649	0.05	787	0.09	915	0.14	1036	0.19	1333	0.43	1491	0.58	1641	0.75	1782	0.92				
1450	924	852	0.11	977	0.18	1085	0.24	1171	0.30	1515	0.65	1638	0.82	1756	1.00	1873	1.20	1987	1.40	2100	1.62
2000	1274	1099	0.22	1184	0.30	1271	0.39	1366	0.48	1705	0.93	1837	1.16	1945	1.37	2042	1.59	2135	1.82	2227	2.05
2550	1624	1357	0.41	1427	0.50	1493	0.60	1559	0.70												
3100	1975	1620	0.67	1680	0.79	1737	0.91	1791	1.03	1900	1.28	2019	1.55	2139	1.83	2242	2.10	2331	2.37	2414	2.63
3650	2325	1887	1.05	1939	1.18	1989	1.32	2038	1.46	2130	1.74	2222	2.04	2321	2.35	2425	2.68	2525	3.01	2614	3.33
4200	2675	2156	1.55	2203	1.70	2247	1.86	2290	2.01	2373	2.33	2453	2.66	2533	3.00	2616	3.35	2705	3.72	2796	4.10
4750	3025	2427	2.19	2468	2.36	2509	2.54	2548	2.71	2623	3.07	2695	3.43	2766	3.81	2837	4.18	2908	4.57	2983	4.98
5300	3376	2699	2.99	2736	3.18	2773	3.38	2808	3.58	2878	3.97	2944	4.37	3009	4.78	3072	5.19	3135	5.61	3199	6.04
5850	3726	2972	3.97	3006	4.19	3039	4.40	3072	4.62	3136	5.05	3197	5.49	3257	5.94	3316	6.39	3374	6.84	3430	7.30
6400	4076	3245	5.16	3276	5.39	3307	5.63	3337	5.86	3396	6.34	3454	6.81	3510	7.30	3565	7.78	3618	8.27	3671	8.77
6950	4427	3519	6.56	3547	6.81	3576	7.07	3604	7.32	3659	7.84	3713	8.35	3765	8.87	3817	9.40	3867	9.93	3917	10.46
7500	4777	3793	8.20	3819	8.47	3846	8.75	3872	9.02	3923	9.57	3974	10.13	4023	10.69	4072	11.25	4119	11.82	4166	12.39
8050	5127	4067	10.10	4092	10.39	4117	10.68	4141	10.98	4189	11.57	4237	12.16	4283	12.76	4329	13.36	4374	13.97	4419	14.58
8600	5478	4341	12.27	4365	12.58	4388	12.89	4411	13.20	4457	13.83	4501	14.47	4545	15.11	4589	15.75	4631	16.39	4674	17.04
9150	5828	4616	14.73	4638	15.06	4660	15.39														

CFM	OV FPM	5" SP		6" SP		7" SP		8" SP		10" SP		12" SP		14" SP		16" SP		18" SP		20" SP		
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	
2300	1465	2358	2.31	2549	2.82	2731	3.36															
2850	1815	2490	2.87	2654	3.41	2815	3.99	2973	4.60	3276	5.88	3559	7.25									
3400	2166	2675	3.58	2816	4.17	2954	4.79	3092	5.44	3363	6.81	3627	8.27	3879	9.81	4121	11.42					
3950	2516	2876	4.44	3013	5.11	3138	5.78	3259	6.47	3498	7.92	3733	9.46	3965	11.09	4191	12.79	4411	14.56	4623	16.40	
4500	2866	3063	5.38	3212	6.18	3340	6.95	3456	7.72	3673	9.27	3882	10.89	4091	12.60	4297	14.38	4500	16.24			
5050	3217	3243	6.42	3394	7.34	3534	8.24	3657	9.12	3871	10.84	4066	12.57	4253	14.36	4440	16.23	4625	18.16			
5600	3567	3445	7.62	3576	8.60	3713	9.62	3844	10.64	4072	12.59	4265	14.50	4443	16.41	4614	18.37					
6150	3917	3669	9.05	3780	10.07	3898	11.13	4022	12.24	4262	14.47	4466	16.62	4644	18.71							
6700	4268	3904	10.71	4004	11.78	4106	12.88	4212	14.03	4440	16.44	4657	18.87									
7250	4618	4146	12.60	4238	13.73	4330	14.89	4424	16.08	4624	18.59											
7800	4968	4392	14.74	4479	15.94	4564	17.17	4650	18.41													
8350	5318	4642	17.15																			

CHICAGO BLOWER SINGLE WIDTH AIRFOIL

SIZE
165 RA

16-3/16 In. Wheel Diameter
1.57 Sq. Ft. Outlet Area
Peak BHP = 0.210 (RPM ÷ 1000)³
Tip Speed (fpm) = 4.24 x RPM

CLASS I 2886 RPM

CLASS II 3753 RPM

CLASS III 4721 RPM

CFM	OV FPM	1/4" SP		1/2" SP		3/4" SP		1" SP		1-1/2" SP		2" SP		2-1/2" SP		3" SP		3-1/2" SP		4" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
900	573	639	0.05	790	0.10	917	0.15	1032	0.20	1341	0.50	1493	0.65	1636	0.80						
1450	924	847	0.12	967	0.19	1070	0.26	1165	0.33	1496	0.70	1634	0.92	1763	1.14	1883	1.36	1994	1.57	2100	1.78
2000	1274	1079	0.22	1177	0.31	1267	0.41	1349	0.50	1689	0.98	1810	1.23	1922	1.49	2030	1.76	2135	2.05	2236	2.33
2550	1624	1325	0.39	1406	0.50	1482	0.62	1555	0.74												
3100	1975	1578	0.63	1646	0.77	1712	0.91	1775	1.05	1896	1.34	2008	1.64	2111	1.94	2208	2.24	2301	2.55	2391	2.87
3650	2325	1835	0.96	1894	1.12	1951	1.29	2007	1.45	2114	1.79	2216	2.13	2313	2.48	2405	2.83	2492	3.19	2574	3.54
4200	2675	2095	1.41	2146	1.59	2197	1.78	2246	1.97	2343	2.35	2435	2.74	2525	3.13	2610	3.53	2693	3.93	2771	4.34
4750	3025	2356	1.98	2402	2.19	2447	2.40	2492	2.61	2578	3.04	2663	3.47	2745	3.91	2825	4.36	2902	4.80	2976	5.26
5300	3376	2619	2.70	2660	2.93	2701	3.16	2741	3.39	2820	3.87	2897	4.35	2973	4.83	3046	5.32	3118	5.82	3188	6.32
5850	3726	2882	3.57	2920	3.82	2957	4.08	2994	4.34	3066	4.86	3137	5.38	3207	5.91	3275	6.45	3342	6.99	3408	7.53
6400	4076	3147	4.62	3181	4.90	3215	5.18	3249	5.46	3316	6.02	3381	6.59	3446	7.17	3509	7.75	3572	8.34	3633	8.93
6950	4427	3411	5.87	3443	6.17	3475	6.47	3506	6.77	3568	7.38	3629	8.00	3689	8.62	3748	9.24	3806	9.88	3864	10.51
7500	4777	3676	7.32	3706	7.64	3735	7.97	3765	8.29	3822	8.95	3879	9.61	3935	10.28	3990	10.95	4045	11.62	4099	12.31
8050	5127	3942	9.00	3969	9.35	3997	9.69	4024	10.04	4078	10.74	4131	11.45	4184	12.16	4236	12.88	4288	13.60	4338	14.33
8600	5478	4207	10.92	4233	11.29	4259	11.66	4285	12.03	4335	12.78	4386	13.53	4435	14.29	4484	15.05	4533	15.82	4581	16.59
9150	5828	4473	13.10	4498	13.49	4522	13.89	4546	14.28	4594	15.07	4641	15.87								

CFM	OV FPM	5" SP		6" SP		7" SP		8" SP		10" SP		12" SP		14" SP		16" SP		18" SP		20" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
2300	1465	2362	2.57	2543	3.06																
2850	1815	2499	3.26	2669	3.89	2826	4.49	2975	5.08	3264	6.33										
3400	2166	2653	3.92	2812	4.68	2964	5.45	3109	6.21	3376	7.65	3624	9.06	3866	10.56						
3950	2516	2833	4.73	2977	5.53	3117	6.37	3254	7.25	3514	9.03	3754	10.76	3977	12.40	4190	14.04	4398	15.75		
4500	2866	3028	5.69	3163	6.57	3292	7.45	3417	8.37	3661	10.33	3894	12.36	4113	14.38	4319	16.31	4514	18.18	4702	20.04
5050	3217	3229	6.78	3360	7.75	3484	8.73	3602	9.72	3827	11.75	4045	13.93	4256	16.20	4458	18.48	4651	20.73		
5600	3567	3438	8.02	3563	9.09	3682	10.16	3796	11.25	4011	13.43	4214	15.68	4412	18.06	4605	20.55				
6150	3917	3653	9.42	3772	10.58	3887	11.76	3997	12.94	4205	15.32	4399	17.72	4585	20.18						
6700	4268	3875	11.01	3988	12.26	4097	13.53	4202	14.81	4404	17.38	4593	19.98								
7250	4618	4102	12.80	4208	14.14	4312	15.50	4413	16.87	4608	19.64										
7800	4968	4333	14.81	4434	16.24	4533	17.69														

CHICAGO BLOWER SINGLE WIDTH AIRFOIL

SIZE
182

17-13/16 In. Wheel Diameter
1.92 Sq. Ft. Outlet Area
Peak BHP = 0.302 (RPM ÷ 1000)³
Tip Speed (fpm) = 4.66 x RPM

CLASS I 2653 RPM
CLASS II 3437 RPM
CLASS III 4323 RPM

CFM	OV FPM	1/4" SP		1/2" SP		3/4" SP		1" SP		1-1/2" SP		2" SP		2-1/2" SP		3" SP		3-1/2" SP		4" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1200	625	618	0.07	741	0.12	849	0.18	953	0.24	1241	0.57	1376	0.76	1506	0.96	1631	1.17	1749	1.40		
1900	990	821	0.16	923	0.24	1024	0.32	1103	0.40	1426	0.87	1536	1.09	1637	1.32	1736	1.56	1835	1.82	1932	2.08
2600	1354	1060	0.32	1133	0.42	1204	0.53	1284	0.64	1601	1.24	1724	1.54	1825	1.83	1913	2.11	1994	2.39	2073	2.69
3300	1719	1308	0.58	1368	0.70	1425	0.83	1481	0.96												
4000	2083	1561	0.96	1612	1.11	1662	1.26	1709	1.42	1801	1.73	1898	2.07	2003	2.43	2101	2.79	2185	3.14	2261	3.48
4700	2448	1816	1.50	1861	1.67	1905	1.85	1947	2.02	2027	2.38	2105	2.76	2185	3.15	2272	3.56	2361	3.99	2446	4.41
5400	2812	2074	2.21	2114	2.40	2152	2.61	2190	2.81	2262	3.22	2331	3.63	2399	4.06	2468	4.50	2540	4.96	2617	5.44
6100	3177	2333	3.12	2369	3.34	2403	3.57	2437	3.79	2503	4.25	2566	4.72	2627	5.19	2687	5.67	2748	6.16	2809	6.66
6800	3542	2593	4.26	2625	4.51	2657	4.76	2687	5.01	2748	5.52	2806	6.03	2862	6.55	2917	7.07	2971	7.60	3025	8.14
7500	3906	2854	5.66	2883	5.93	2912	6.21	2940	6.48	2995	7.04	3049	7.60	3101	8.17	3152	8.74	3202	9.32	3252	9.90
8200	4271	3115	7.34	3142	7.64	3168	7.94	3194	8.24	3245	8.84	3295	9.45	3344	10.07	3392	10.69	3439	11.31	3484	11.94
8900	4635	3376	9.32	3401	9.65	3426	9.97	3450	10.30	3497	10.95	3544	11.61	3590	12.28	3635	12.95	3679	13.62	3722	14.30
9600	5000	3638	11.65	3661	11.99	3684	12.34	3706	12.69	3751	13.40	3795	14.11	3838	14.82	3880	15.54	3921	16.26	3962	16.99
10300	5365	3900	14.33	3921	14.70	3943	15.08	3964	15.45	4006	16.21	4047	16.96	4087	17.73	4127	18.49	4166	19.27	4205	20.04
11000	5729	4162	17.40	4182	17.79	4202	18.19	4222	18.59	4262	19.40	4300	20.21								

CFM	OV FPM	5" SP		6" SP		7" SP		8" SP		10" SP		12" SP		14" SP		16" SP		18" SP		20" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
2600	1354	2121	2.64	2299	3.24																
3300	1719	2230	3.30	2385	3.95	2536	4.64	2684	5.37	2964	6.89										
4000	2083	2398	4.16	2529	4.87	2658	5.61	2787	6.39	3039	8.03	3282	9.78	3514	11.62	3735	13.55				
4700	2448	2590	5.23	2714	6.03	2829	6.83	2940	7.66	3160	9.40	3378	11.26	3591	13.21	3799	15.26	4000	17.39	4194	19.60
5400	2812	2770	6.42	2905	7.38	3021	8.30	3126	9.22	3324	11.08	3516	13.04	3707	15.10	3896	17.25	4082	19.49	4264	21.81
6100	3177	2942	7.72	3079	8.84	3206	9.93	3318	10.99	3513	13.07	3690	15.16	3861	17.33	4030	19.58	4199	21.92		
6800	3542	3135	9.26	3253	10.44	3377	11.67	3497	12.91	3704	15.30	3880	17.61	4042	19.93	4197	22.30				
7500	3906	3350	11.09	3449	12.32	3555	13.61	3666	14.96	3884	17.69	4072	20.31	4234	22.86						
8200	4271	3575	13.22	3664	14.52	3755	15.86	3850	17.26	4054	20.20	4251	23.18								
8900	4635	3806	15.67	3889	17.05	3971	18.47	4055	19.92	4232	22.97										
9600	5000	4042	18.45	4120	19.93	4196	21.43	4273	22.96												
10300	5365	4281	21.60																		

CHICAGO BLOWER SINGLE WIDTH AIRFOIL

SIZE
182 RA

17-13/16 In. Wheel Diameter
1.92 Sq. Ft. Outlet Area
Peak BHP = 0.339 (RPM ÷ 1000)³
Tip Speed (fpm) = 4.66 x RPM

CLASS I 2653 RPM
CLASS II 3437 RPM
CLASS III 4323 RPM

CFM	OV FPM	1/4" SP		1/2" SP		3/4" SP		1" SP		1-1/2" SP		2" SP		2-1/2" SP		3" SP		3-1/2" SP		4" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1200	625	610	0.08	740	0.14	853	0.20	952	0.27	1246	0.65	1382	0.86	1506	1.06	1625	1.26				
1900	990	813	0.16	918	0.25	1009	0.34	1091	0.44	1404	0.93	1523	1.20	1637	1.49	1745	1.78	1845	2.07	1939	2.34
2600	1354	1039	0.31	1123	0.43	1202	0.55	1274	0.68	1601	1.24	1724	1.54	1825	1.83	1913	2.11	1994	2.39	2073	2.69
3300	1719	1276	0.55	1345	0.70	1412	0.85	1475	1.00	1593	1.32	1700	1.63	1799	1.96	1892	2.29	1984	2.65	2073	3.02
4000	2083	1519	0.89	1577	1.07	1634	1.25	1689	1.43	1794	1.81	1892	2.19	1985	2.57	2071	2.96	2153	3.35	2231	3.75
4700	2448	1765	1.37	1816	1.58	1865	1.79	1913	2.00	2006	2.43	2096	2.87	2181	3.31	2262	3.76	2339	4.22	2413	4.67
5400	2812	2014	2.00	2058	2.24	2102	2.48	2144	2.72	2228	3.21	2308	3.70	2386	4.21	2462	4.72	2534	5.23	2604	5.75
6100	3177	2264	2.82	2304	3.08	2343	3.35	2381	3.62	2456	4.16	2529	4.72	2600	5.28	2670	5.85	2737	6.42	2803	7.00
6800	3542	2515	3.83	2551	4.12	2586	4.42	2621	4.72	2689	5.32	2755	5.94	2821	6.56	2885	7.18	2948	7.81	3009	8.45
7500	3906	2767	5.07	2800	5.39	2832	5.72	2863	6.05	2926	6.71	2987	7.38	3047	8.06	3107	8.74	3165	9.43	3222	10.12
8200	4271	3019	6.56	3049	6.91	3079	7.27	3108	7.62	3166	8.34	3222	9.07	3278	9.81	3333	10.55	3387	11.29	3441	12.05
8900	4635	3272	8.32	3300	8.70	3327	9.08	3354	9.47	3408	10.25	3460	11.03	3512	11.83	3563	12.63	3614	13.43	3664	14.24
9600	5000	3525	10.37	3551	10.78	3576	11.20	3602	11.61	3651	12.45	3701	13.29	3749	14.14	3797	15.00	3844	15.86	3891	16.73
10300	5365	3779	12.75	3803	13.19	3827	13.63	3850	14.07	3897	14.97	3943	15.87	3988	16.78	4033	17.69	4078	18.61	4122	19.54
11000	5729	4033	15.46	4055	15.93	4077	16.40	4099	16.87	4143	17.83	4187	18.79	4229	19.75	4272	20.73	4314	21.70		
11700	6094	4286	18.54	4308	19.04																

CFM	OV FPM	5" SP		6" SP		7" SP		8" SP		10" SP		12" SP		14" SP		16" SP		18" SP		20" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
2600	1354	2117	2.88																		
3300	1719	2242	3.77	2396	4.48	2541	5.16	2680	5.85												
4000	2083	2384	4.60	2531	5.49	2671	6.40	2803	7.28	3046	8.95	3276	10.63								
4700	2448	2552	5.59	2684	6.55	2813	7.56	2939	8.61	3177	10.73	3395	12.76	3599	14.71	3794	16.68	3986	18.75		
5400	2812	2737	6.79	2861	7.84	2979	8.91	3093	10.02	3316	12.37	3528	14.82	3728	17.23	3915	19.54	4093	21.77	4265	24.01
6100	3177	2929	8.16	3048	9.34	3161	10.52	3268	11.71	3473	14.17	3672	16.80	3864	19.55	4048	22.31	4223	25.02		
6800	3542	3128	9.73	3242	11.03	3350	12.34	3454	13.66	3648	16.30	3833	19.04	4012	21.91	4188	24.93				
7500	3906	3334	11.52	3442	12.94	3545	14.37	3645	15.81	3834	18.71	4010	21.63	4178	24.63						
8200	4271	3546	13.56	3648	15.10	3746	16.64	3842	18.21	4024	21.35	4195	24.53								
8900	4635	3763	15.87	3859	17.52	3953	19.19	4044	20.87	4219	24.26										
9600	5000	3984	18.48	4075	20.25	4164	22.03	4251	23.82												
10300	5365	4210	21.40	4296	23.28																

Performance shown is for installation type B - Free inlet, Ducted outlet.
Performance ratings do not include the effects of appurtenances in the air stream.

Power ratings (BHP) do not include drive losses.

CHICAGO BLOWER SINGLE WIDTH AIRFOIL



21-9/16 In. Wheel Diameter
 2.85 Sq. Ft. Outlet Area
 Peak BHP = 0.786 (RPM ÷ 1000)³
 Tip Speed (fpm) = 5.65 x RPM

- CLASS I 2205 RPM**
- CLASS II 2868 RPM**
- CLASS III 3607 RPM**

CFM	OV FPM	1/4" SP		1/2" SP		3/4" SP		1" SP		1-1/2" SP		2" SP		2-1/2" SP		3" SP		3-1/2" SP		4" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1500	526	472	0.08	579	0.15	680	0.23	773	0.32	993	0.75	1113	1.01	1228	1.29						
2500	877	626	0.19	723	0.30	802	0.40	868	0.51	1129	1.13	1222	1.43	1312	1.75	1400	2.09	1487	2.45	1572	2.83
3500	1228	814	0.38	879	0.52	946	0.67	1017	0.83	1275	1.63	1374	2.03	1455	2.41	1528	2.80	1598	3.20	1668	3.61
4500	1579	1012	0.70	1065	0.87	1115	1.05	1165	1.23												
5500	1930	1214	1.19	1259	1.39	1302	1.60	1343	1.81	1425	2.25	1514	2.74	1604	3.24	1682	3.72	1749	4.19	1811	4.66
6500	2281	1419	1.86	1458	2.10	1496	2.35	1532	2.59	1601	3.10	1670	3.62	1743	4.18	1822	4.76	1897	5.35	1964	5.93
7500	2632	1626	2.77	1661	3.04	1694	3.32	1726	3.60	1788	4.17	1848	4.76	1907	5.36	1969	5.98	2035	6.64	2103	7.33
8500	2982	1834	3.94	1865	4.25	1895	4.57	1924	4.88	1980	5.52	2034	6.17	2087	6.83	2139	7.51	2193	8.20	2248	8.93
9500	3333	2043	5.42	2071	5.76	2098	6.11	2124	6.47	2176	7.18	2226	7.89	2274	8.62	2321	9.36	2368	10.11	2415	10.87
10500	3684	2252	7.23	2277	7.61	2302	8.00	2327	8.38	2374	9.17	2420	9.95	2465	10.75	2509	11.55	2552	12.37	2594	13.19
11500	4035	2462	9.42	2485	9.84	2508	10.26	2531	10.68	2575	11.53	2617	12.39	2659	13.25	2700	14.13	2740	15.00	2779	15.89
12500	4386	2672	12.01	2694	12.47	2715	12.92	2736	13.38	2777	14.30	2817	15.23	2856	16.16	2894	17.11	2932	18.06	2968	19.01
13500	4737	2883	15.05	2903	15.54	2922	16.03	2942	16.52	2980	17.52	3017	18.51	3054	19.52	3090	20.53	3126	21.55	3160	22.58
14500	5088	3093	18.57	3112	19.09	3130	19.62	3148	20.15	3184	21.21	3220	22.28	3254	23.36	3288	24.44	3322	25.53	3355	26.62
15500	5439	3304	22.60	3322	23.16	3339	23.72	3356	24.29	3390	25.42	3423	26.56	3456	27.71	3488	28.86	3519	30.02	3551	31.18
16500	5789	3515	27.18	3532	27.78	3548	28.38	3564	28.98	3596	30.18										

CFM	OV FPM	5" SP		6" SP		7" SP		8" SP		10" SP		12" SP		14" SP		16" SP		18" SP		20" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
3500	1228	1735	3.63																		
4500	1579	1806	4.49	1941	5.42	2072	6.40	2198	7.43												
5500	1930	1927	5.61	2041	6.62	2154	7.68	2266	8.79	2484	11.13	2691	13.64	2886	16.28						
6500	2281	2079	7.04	2182	8.15	2279	9.28	2376	10.46	2567	12.96	2755	15.62	2938	18.42	3115	21.36	3284	24.42	3447	27.58
7500	2632	2230	8.68	2336	9.97	2430	11.24	2518	12.53	2687	15.18	2854	17.98	3019	20.94	3181	24.03	3340	27.25	3496	30.59
8500	2982	2367	10.45	2482	12.00	2583	13.49	2673	14.94	2833	17.83	2983	20.81	3130	23.90	3277	27.14	3423	30.51	3566	34.00
9500	3333	2513	12.47	2619	14.16	2725	15.90	2822	17.60	2988	20.87	3132	24.10	3268	27.38	3401	30.77	3532	34.28		
10500	3684	2679	14.87	2767	16.64	2862	18.50	2959	20.41	3138	24.18	3287	27.79	3420	31.36	3545	34.96				
11500	4035	2857	17.69	2934	19.55	3015	21.47	3100	23.48	3276	27.66	3437	31.78	3575	35.74						
12500	4386	3041	20.94	3112	22.91	3183	24.92	3256	27.00	3414	31.39	3576	35.95								
13500	4737	3228	24.64	3295	26.73	3361	28.86	3427	31.03	3564	35.55										
14500	5088	3419	28.83	3482	31.04	3544	33.30	3605	35.59												

CHICAGO BLOWER SINGLE WIDTH AIRFOIL



21-9/16 In. Wheel Diameter
 2.85 Sq. Ft. Outlet Area
 Peak BHP = 0.881 (RPM ÷ 1000)³
 Tip Speed (fpm) = 5.65 x RPM

- CLASS I 2205 RPM**
- CLASS II 2868 RPM**
- CLASS III 3607 RPM**

CFM	OV FPM	1/4" SP		1/2" SP		3/4" SP		1" SP		1-1/2" SP		2" SP		2-1/2" SP		3" SP		3-1/2" SP		4" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1500	526	465	0.09	582	0.17	679	0.25			998	0.85	1114	1.11								
2500	877	623	0.19	714	0.31	792	0.44	866	0.57	1116	1.22	1220	1.60	1318	2.00	1408	2.38	1492	2.74	1572	3.11
3500	1228	800	0.38	874	0.54	943	0.71	1005	0.87	1263	1.72	1354	2.16	1438	2.61	1520	3.10	1599	3.60	1675	4.11
4500	1579	988	0.67	1049	0.87	1107	1.08	1162	1.29												
5500	1930	1182	1.10	1233	1.35	1283	1.60	1331	1.85	1421	2.37	1505	2.89	1583	3.43	1656	3.96	1726	4.51	1793	5.08
6500	2281	1380	1.71	1424	2.00	1466	2.29	1508	2.58	1589	3.18	1666	3.79	1738	4.41	1807	5.04	1872	5.66	1934	6.30
7500	2632	1579	2.52	1618	2.85	1655	3.18	1692	3.51	1764	4.20	1834	4.89	1901	5.59	1965	6.30	2026	7.02	2086	7.74
8500	2982	1780	3.56	1814	3.93	1848	4.31	1881	4.68	1946	5.45	2009	6.22	2070	7.01	2130	7.80	2187	8.61	2243	9.41
9500	3333	1982	4.87	2012	5.28	2043	5.70	2073	6.12	2132	6.96	2189	7.82	2245	8.69	2300	9.57	2354	10.45	2406	11.35
10500	3684	2184	6.48	2212	6.93	2240	7.39	2267	7.85	2321	8.78	2373	9.72	2425	10.67	2476	11.63	2526	12.60	2575	13.57
11500	4035	2387	8.41	2412	8.91	2438	9.41	2463	9.91	2513	10.92	2561	11.94	2609	12.98	2656	14.02	2703	15.07	2749	16.13
12500	4386	2590	10.71	2614	11.25	2637	11.78	2660	12.33	2706	13.42	2752	14.53	2796	15.65	2840	16.77	2884	17.90	2926	19.05
13500	4737	2793	13.40	2815	13.97	2837	14.55	2859	15.14	2902	16.32	2944	17.51	2985	18.70	3027	19.91	3067	21.13	3108	22.35
14500	5088	2997	16.50	3018	17.12	3038	17.75	3058	18.37	3098	19.63	3138	20.90	3177	22.19	3216	23.48	3254	24.78	3292	26.08
15500	5439	3201	20.06	3220	20.73	3239	21.39	3258	22.06	3296	23.40	3333	24.76	3370	26.12	3406	27.49	3442	28.88	3478	30.26
16500	5789	3405	24.11	3423	24.81	3441	25.52	3459	26.23	3495	27.66	3530	29.09	3564	30.54	3599	32.00				

CFM	OV FPM	5" SP		6" SP		7" SP		8" SP		10" SP		12" SP		14" SP		16" SP		18" SP		20" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
4500	1579	1816	5.10	1945	6.03	2068	6.98														
5500	1930	1925	6.29	2050	7.54	2167	8.75	2276	9.92	2482	12.20										
6500	2281	2052	7.59	2166	8.96	2277	10.41	2383	11.88	2582	14.76	2764	17.48	2936	20.18	3105	23.04				
7500	2632	2197	9.20	2302	10.67	2402	12.19	2500	13.78	2690	17.14	2869	20.53	3035	23.77	3191	26.88	3341	29.99	3488	33.20
8500	2982	2350	11.05	2450	12.69	2544	14.34	2635	16.03	2810	19.56	2980	23.33	3142	27.18	3296	30.98	3441	34.63	3579	38.17
9500	3333	2507	13.15	2603	14.97	2694	16.81	2781	18.65	2946	22.39	3103	26.31	3256	30.46	3405	34.75	3547	39.05		
10500	3684	2670	15.55	2762	17.54	2849	19.55	2933	21.57	3092	25.64	3240	29.77	3383	34.06	3523	38.56				
11500	4035	2838	18.27	2925	20.43	3008	22.61	3089	24.81	3243	29.24	3386	33.70	3522	38.21						
12500	4386	3011	21.35	3092	23.68	3172	26.02	3249	28.39	3398	33.17	3537	38.00								
13500	4737	3187	24.82	3264	27.31	3340	29.83	3414	32.36	3556	37.49										
14500	5088	3366	28.72	3440	31.37	3512	34.05														

CHICAGO BLOWER SINGLE WIDTH AIRFOIL

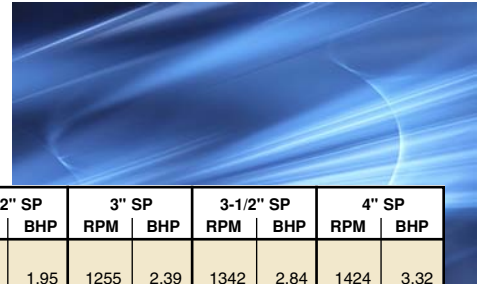
SIZE
245

24 In. Wheel Diameter
3.45 Sq. Ft. Outlet Area
Peak BHP = 1.318 (RPM ÷ 1000)³
Tip Speed (fpm) = 6.28 x RPM

CLASS I 1991 RPM

CLASS II 2590 RPM

CLASS III 3258 RPM



CFM	OV FPM	1/4" SP		1/2" SP		3/4" SP		1" SP		1-1/2" SP		2" SP		2-1/2" SP		3" SP		3-1/2" SP		4" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
2700	783	525	0.18	604	0.29	681	0.41	753	0.54	885	0.83	1005	1.16	1165	1.95	1255	2.39	1342	2.84	1424	3.32
3900	1130	686	0.38	753	0.54	811	0.69	864	0.85	970	1.18	1071	1.55	1258	2.58	1337	3.05	1412	3.55	1485	4.07
5100	1478	859	0.71	913	0.91	964	1.12	1012	1.32	1095	1.73	1177	2.14	1258	2.58	1337	3.05	1412	3.55	1485	4.07
6300	1826	1038	1.21	1082	1.45	1125	1.70	1168	1.96	1246	2.47	1315	2.97	1381	3.47	1446	3.98	1513	4.52	1578	5.08
7500	2174	1221	1.93	1258	2.21	1294	2.50	1331	2.79	1402	3.40	1468	4.01	1527	4.61	1584	5.20	1639	5.80	1694	6.41
8700	2522	1405	2.91	1437	3.23	1469	3.55	1500	3.88	1563	4.57	1624	5.28	1681	5.99	1735	6.69	1785	7.38	1834	8.06
9900	2870	1590	4.18	1619	4.54	1647	4.90	1675	5.28	1730	6.04	1785	6.83	1838	7.64	1890	8.45	1939	9.25	1985	10.04
11100	3217	1776	5.79	1802	6.19	1827	6.59	1852	7.01	1902	7.85	1951	8.71	2000	9.60	2048	10.51	2094	11.42	2139	12.32
12300	3565	1963	7.78	1986	8.22	2009	8.67	2032	9.12	2077	10.04	2121	10.98	2165	11.94	2210	12.93	2253	13.93	2296	14.93
13500	3913	2150	10.18	2171	10.67	2192	11.16	2213	11.65	2254	12.65	2295	13.67	2335	14.70	2376	15.76	2416	16.84	2456	17.94
14700	4261	2337	13.05	2357	13.58	2376	14.11	2395	14.64	2433	15.72	2471	16.82	2509	17.93	2546	19.07	2583	20.22	2620	21.39
15900	4609	2525	16.42	2543	16.99	2561	17.56	2579	18.13	2614	19.29	2649	20.47	2684	21.66	2718	22.88	2753	24.10	2787	25.35
17100	4957	2713	20.33	2730	20.93	2747	21.55	2763	22.17	2796	23.41	2829	24.67	2861	25.94	2894	27.23	2926	28.53	2958	29.85
18300	5304	2901	24.82	2917	25.47	2933	26.13	2948	26.79	2979	28.11	3010	29.45	3040	30.80	3070	32.17	3100	33.55	3130	34.95
19500	5652	3090	29.94	3104	30.63	3119	31.33	3134	32.03	3163	33.43	3191	34.85	3220	36.29	3249	37.74				

CFM	OV FPM	5" SP		6" SP		7" SP		8" SP		10" SP		12" SP		14" SP		16" SP		18" SP		20" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
5100	1478	1624	5.19	1756	6.38	1882	7.62														
6300	1826	1703	6.26	1822	7.54	1936	8.89	2046	10.31	2257	13.31	2451	16.45								
7500	2174	1805	7.68	1914	9.02	2019	10.44	2120	11.94	2312	15.13	2496	18.55	2672	22.14	2838	25.85				
8700	2522	1929	9.46	2024	10.90	2120	12.39	2214	13.96	2393	17.29	2563	20.87	2726	24.67	2884	28.65	3037	32.78	3184	37.03
9900	2870	2072	11.60	2155	13.18	2239	14.78	2323	16.44	2490	19.92	2650	23.63	2803	27.58	2950	31.73	3093	36.07	3233	40.56
11100	3217	2223	14.10	2301	15.85	2376	17.61	2451	19.39	2600	23.07	2749	26.93	2894	31.00	3034	35.30	3169	39.79		
12300	3565	2377	16.94	2453	18.91	2524	20.86	2593	22.80	2727	26.73	2862	30.80	2997	35.04	3130	39.47				
13500	3913	2534	20.15	2608	22.35	2677	24.52	2743	26.65	2868	30.92	2991	35.24	3113	39.69	3237	44.29				
14700	4261	2693	23.78	2764	26.18	2832	28.58	2897	30.95	3017	35.61	3131	40.25	3244	44.96						
15900	4609	2855	27.89	2923	30.48	2988	33.08	3051	35.68	3170	40.79										
17100	4957	3021	32.54	3085	35.29	3147	38.08	3208	40.88												
18300	5304	3190	37.79	3249	40.69																

CHICAGO BLOWER SINGLE WIDTH AIRFOIL

SIZE
245 RA

24 In. Wheel Diameter
3.45 Sq. Ft. Outlet Area
Peak BHP = 1.493 (RPM ÷ 1000)³
Tip Speed (fpm) = 6.28 x RPM

CLASS I 1991 RPM

CLASS II 2590 RPM

CLASS III 3258 RPM

CFM	OV FPM	1/4" SP		1/2" SP		3/4" SP		1" SP		1-1/2" SP		2" SP		2-1/2" SP		3" SP		3-1/2" SP		4" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
2700	783	487	0.17	579	0.29	659	0.42	733	0.57	878	0.90										
3900	1130	622	0.32	697	0.49	765	0.66	827	0.85	938	1.23	1041	1.63	1145	2.09	1244	2.59	1336	3.10		
5100	1478	769	0.56	830	0.77	888	0.99	942	1.22	1042	1.69	1133	2.18	1216	2.68	1296	3.19	1374	3.74	1454	4.33
6300	1826	921	0.91	974	1.17	1023	1.44	1070	1.71	1159	2.28	1242	2.85	1319	3.44	1392	4.05	1461	4.66	1527	5.28
7500	2174	1078	1.42	1123	1.72	1166	2.03	1208	2.34	1287	3.00	1362	3.67	1433	4.35	1501	5.04	1565	5.75	1627	6.46
8700	2522	1236	2.09	1276	2.44	1314	2.79	1352	3.15	1423	3.89	1491	4.65	1556	5.43	1618	6.21	1679	7.01	1737	7.81
9900	2870	1396	2.97	1432	3.36	1466	3.75	1500	4.16	1564	4.98	1626	5.83	1686	6.70	1744	7.58	1800	8.46	1854	9.36
11100	3217	1557	4.08	1589	4.51	1620	4.95	1651	5.39	1710	6.30	1767	7.24	1822	8.19	1875	9.16	1927	10.14	1978	11.13
12300	3565	1718	5.44	1748	5.92	1776	6.40	1804	6.88	1858	7.88	1911	8.90	1962	9.94	2012	11.00	2060	12.07	2108	13.15
13500	3913	1880	7.09	1907	7.61	1933	8.13	1959	8.66	2010	9.74	2058	10.85	2106	11.97	2152	13.12	2198	14.28	2242	15.45
14700	4261	2043	9.05	2068	9.61	2092	10.18	2116	10.75	2163	11.92	2208	13.11	2253	14.32	2296	15.55	2339	16.79	2381	18.05
15900	4609	2206	11.35	2229	11.95	2251	12.57	2274	13.19	2317	14.44	2360	15.71	2402	17.01	2443	18.32	2483	19.65	2522	20.99
17100	4957	2369	14.01	2390	14.66	2411	15.32	2432	15.98	2473	17.32	2513	18.68	2553	20.06	2591	21.46	2629	22.87	2667	24.30
18300	5304	2532	17.07	2552	17.77	2572	18.47	2592	19.18	2630	20.61	2668	22.05	2705	23.52	2742	25.00	2778	26.49	2813	28.01
19500	5652	2696	20.56	2714	21.30	2733	22.04	2752	22.79	2788	24.31	2824	25.84	2859	27.39	2894	28.96	2928	30.54	2962	32.14
20700	6000	2859	24.49	2877	25.28	2895	26.07	2912	26.86	2947	28.46	2981	30.08	3014	31.72	3047	33.37	3080	35.04	3112	36.72

CFM	OV FPM	5" SP		6" SP		7" SP		8" SP		10" SP		12" SP		14" SP		16" SP		18" SP		20" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
5100	1478	1608	5.62	1749	6.95																
6300	1826	1654	6.57	1782	8.01	1909	9.57	2030	11.20	2248	14.49										
7500	2174	1744	7.92	1853	9.40	1960	10.95	2068	12.62	2281	16.30	2481	20.19	2662	24.11						
8700	2522	1847	9.45	1951	11.12	2049	12.81	2143	14.54	2328	18.19	2513	22.27	2695	26.66	2866	31.19	3025	35.74		
9900	2870	1958	11.18	2056	13.04	2150	14.93	2240	16.83	2409	20.71	2572	24.77	2734	29.17	2897	33.94	3056	38.95	3209	44.09
11100	3217	2076	13.14	2169	15.17	2259	17.24	2345	19.34	2507	23.60	2659	27.94	2805	32.40	2949	37.11	3095	42.16	3240	47.52
12300	3565	2200	15.34	2288	17.56	2373	19.81	2455	22.09	2611	26.73	2758	31.45	2897	36.23	3031	41.11	3161	46.15		
13500	3913	2329	17.82	2412	20.23	2493	22.66	2572	25.12	2722	30.12	2863	35.22	2998	40.40	3126	45.63	3249	50.92		
14700	4261	2462	20.61	2541	23.20	2618	25.82	2693	28.46	2837	33.82	2973	39.29	3103	44.84	3228	50.46				
15																					

CHICAGO BLOWER SINGLE WIDTH AIRFOIL

CLASS I 1809 RPM

SIZE 270

26-7/16 In. Wheel Diameter
4.19 Sq. Ft. Outlet Area
Peak BHP = 2.138 (RPM ÷ 1000)³
Tip Speed (fpm) = 6.92 x RPM

CLASS II 2353 RPM

CLASS III 2959 RPM

CFM	OV FPM	1/4" SP		1/2" SP		3/4" SP		1" SP		1-1/2" SP		2" SP		2-1/2" SP		3" SP		3-1/2" SP		4" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
3000	716	450	0.19	527	0.31	601	0.45	669	0.60	794	0.95										
4400	1050	588	0.39	652	0.57	705	0.75	757	0.93	859	1.32	954	1.76	1043	2.23	1128	2.75	1209	3.28		
5800	1384	737	0.74	789	0.96	838	1.20	881	1.43	960	1.89	1039	2.38	1117	2.90	1191	3.46	1261	4.05	1330	4.67
7200	1718	893	1.26	935	1.53	976	1.82	1016	2.12	1088	2.69	1153	3.26	1216	3.84	1280	4.45	1343	5.08	1404	5.75
8600	2053	1051	2.01	1086	2.33	1121	2.66	1156	3.01	1223	3.71	1284	4.40	1339	5.08	1393	5.76	1445	6.46	1499	7.17
10000	2387	1211	3.04	1242	3.40	1272	3.78	1302	4.16	1362	4.97	1419	5.78	1473	6.59	1522	7.39	1569	8.17	1614	8.97
11400	2721	1372	4.37	1400	4.79	1426	5.21	1453	5.64	1506	6.53	1558	7.45	1608	8.38	1656	9.31	1701	10.22	1743	11.12
12800	3055	1534	6.07	1559	6.53	1583	7.00	1607	7.48	1654	8.46	1701	9.47	1747	10.50	1792	11.55	1836	12.60	1877	13.63
14200	3389	1697	8.17	1719	8.68	1741	9.20	1763	9.72	1805	10.79	1848	11.89	1890	13.01	1932	14.16	1973	15.32	2013	16.48
15600	3723	1860	10.72	1880	11.28	1900	11.84	1920	12.41	1959	13.58	1998	14.76	2037	15.97	2075	17.21	2113	18.47	2151	19.74
17000	4057	2024	13.76	2042	14.37	2061	14.98	2079	15.60	2115	16.85	2151	18.13	2186	19.43	2222	20.75	2257	22.10	2292	23.47
18400	4391	2187	17.33	2205	17.99	2222	18.65	2239	19.32	2272	20.67	2305	22.04	2338	23.43	2371	24.84	2404	26.27	2436	27.73
19800	4726	2351	21.49	2367	22.19	2383	22.90	2399	23.62	2430	25.06	2461	26.52	2492	28.01	2523	29.51	2553	31.03	2583	32.57
21200	5060	2516	26.27	2530	27.02	2545	27.78	2560	28.54	2589	30.08	2618	31.64	2647	33.21	2676	34.81	2704	36.42	2733	38.05
22600	5394	2680	31.71	2694	32.51	2708	33.32	2722	34.14	2749	35.77	2776	37.42	2804	39.09	2831	40.77	2857	42.48	2884	44.20
24000	5728	2844	37.87	2857	38.72	2870	39.57	2884	40.44	2909	42.17	2935	43.92								

CFM	OV FPM	5" SP		6" SP		7" SP		8" SP		10" SP		12" SP		14" SP		16" SP		18" SP		20" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
6000	1432	1467	6.15	1589	7.57	1703	9.06														
7400	1766	1532	7.35	1642	8.89	1747	10.51	1849	12.21	2042	15.79										
8800	2100	1618	8.92	1719	10.53	1816	12.24	1909	14.04	2087	17.88	2256	21.97	2417	26.25						
10200	2434	1721	10.90	1811	12.62	1900	14.41	1987	16.28	2153	20.29	2310	24.59	2461	29.15	2606	33.92	2747	38.85	2881	43.90
11600	2768	1843	13.29	1921	15.15	2000	17.06	2079	19.04	2234	23.20	2382	27.66	2523	32.41	2659	37.39	2791	42.59	2920	47.98
13000	3103	1973	16.08	2045	18.13	2115	20.20	2185	22.30	2326	26.69	2465	31.31	2599	36.21	2728	41.36	2853	46.75		
14400	3437	2107	19.26	2177	21.55	2242	23.82	2306	26.11	2432	30.76	2560	35.60	2686	40.67	2809	45.96	2928	51.52		
15800	3771	2243	22.83	2311	25.40	2374	27.91	2435	30.41	2552	35.41	2667	40.53	2783	45.82	2898	51.31				
17200	4105	2381	26.85	2446	29.66	2509	32.46	2568	35.20	2679	40.63	2785	46.09	2891	51.65						
18600	4439	2521	31.38	2584	34.42	2645	37.46	2703	40.49	2811	46.42	2912	52.28								
20000	4773	2664	36.49	2724	39.73	2782	43.00	2839	46.27	2945	52.75										
21400	5107	2811	42.23	2866	45.65	2922	49.12														

CHICAGO BLOWER SINGLE WIDTH AIRFOIL

CLASS I 1809 RPM

SIZE 270 RA

26-7/16 In. Wheel Diameter
4.19 Sq. Ft. Outlet Area
Peak BHP = 2.422 (RPM ÷ 1000)³
Tip Speed (fpm) = 6.92 x RPM

CLASS II 2353 RPM

CLASS III 2959 RPM

CFM	OV FPM	1/4" SP		1/2" SP		3/4" SP		1" SP		1-1/2" SP		2" SP		2-1/2" SP		3" SP		3-1/2" SP		4" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
3000	716	420	0.18	508	0.32	583	0.47	657	0.64	792	1.03										
4400	1050	535	0.33	607	0.53	671	0.73	729	0.94	833	1.38	934	1.87	1033	2.42	1123	2.99				
5800	1384	661	0.58	720	0.83	775	1.09	826	1.35	919	1.89	1004	2.45	1082	3.02	1158	3.64	1235	4.31	1311	5.03
7200	1718	794	0.96	843	1.25	890	1.56	935	1.88	1019	2.53	1096	3.20	1168	3.88	1235	4.57	1299	5.28	1361	6.00
8600	2053	929	1.49	972	1.83	1013	2.19	1053	2.56	1128	3.31	1198	4.09	1264	4.88	1327	5.68	1387	6.50	1444	7.33
10000	2387	1067	2.20	1105	2.59	1141	3.00	1176	3.42	1244	4.28	1308	5.16	1369	6.06	1427	6.97	1483	7.89	1537	8.83
11400	2721	1206	3.12	1240	3.57	1272	4.03	1304	4.49	1365	5.45	1424	6.44	1480	7.45	1534	8.46	1586	9.49	1637	10.53
12800	3055	1346	4.29	1376	4.79	1406	5.30	1435	5.81	1491	6.87	1544	7.96	1596	9.07	1647	10.20	1695	11.33	1743	12.48
14200	3389	1487	5.73	1514	6.28	1541	6.84	1568	7.41	1619	8.56	1669	9.75	1717	10.96	1764	12.20	1809	13.44	1854	14.70
15600	3723	1628	7.48	1653	8.08	1678	8.69	1703	9.31	1750	10.56	1796	11.85	1841	13.16	1885	14.49	1927	15.84	1969	17.21
17000	4057	1769	9.56	1793	10.21	1816	10.87	1839	11.54	1883	12.89	1926	14.28	1968	15.68	2009	17.12	2049	18.57	2088	20.04
18400	4391	1911	12.00	1933	12.70	1955	13.41	1976	14.13	2017	15.59	2057	17.07	2097	18.58	2135	20.11	2173	21.66	2210	23.23
19800	4726	2054	14.83	2074	15.59	2094	16.35	2114	17.12	2153	18.68	2190	20.26	2228	21.86	2264	23.49	2300	25.14	2335	26.81
21200	5060	2196	18.09	2215	18.90	2234	19.71	2252	20.53	2289	22.19	2325	23.87	2360	25.58	2394	27.30	2428	29.05	2461	30.81
22600	5394	2338	21.80	2356	22.66	2374	23.52	2392	24.39	2426	26.16	2460	27.94	2493	29.74	2526	31.57	2558	33.41	2590	35.28
24000	5728	2481	25.99	2498	26.90	2515	27.82	2531	28.74	2564	30.60	2596	32.49	2628	34.39	2659	36.32	2690	38.26	2720	40.22

CFM	OV FPM	5" SP		6" SP		7" SP		8" SP		10" SP		12" SP		14" SP		16" SP		18" SP		20" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
6000	1432	1456	6.68	1583	8.25																
7400	1766	1491	7.75	1612	9.50	1728	11.37	1838	13.30												
8800	2100	1564	9.24	1666	11.01	1766	12.89	1867	14.93	2065	19.35	2246	23.95								
10200	2434	1653	10.99	1748	12.96	1838	14.96	1926	17.01	2099	21.45	2273	26.39	2440	31.64	2594	36.97	2737	42.29		
11600	2768	1748	12.95	1839	15.14	1925	17.36	2007	19.61	2164	24.20	2316	29.10	2469	34.47	2621	40.23	2767	46.21	2905	52.27
13000	3103	1849	15.14	1936	17.54	2018	19.98	2097	22.46	2246	27.48	2387	32.60	2523	37.95	2659	43.66	2796	49.83	2931	56.31
14400	3437	1956	17.61	2038	20.22	2116	22.87	2192	25.56	2336	31.03	2471	36.59	2599	42.23	2722	48.03	2845	54.11		
15800	3771	2067	20.38	2144	23.21	2219	25.92	2292	28.97	2430	34.86	2560	40.87	2684	46.96	2802	53.12	2916	59.39		
17200	4105	2182	23.48	2255	26.52	2327	29.60	2396	32.71	2529	39.02	2654	45.46	2774	52.00	2889	58.62</				

CHICAGO BLOWER SINGLE WIDTH AIRFOIL

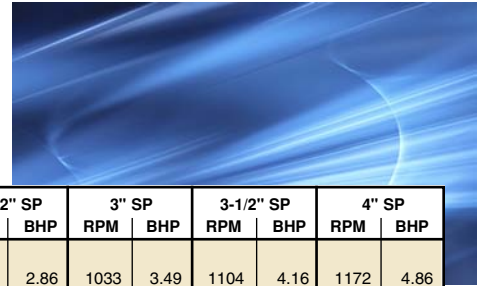
SIZE
300

29-1/8 In. Wheel Diameter
5.17 Sq. Ft. Outlet Area
Peak BHP = 3.469 (RPM ÷ 1000)³
Tip Speed (fpm) = 7.63 x RPM

CLASS I 1663 RPM

CLASS II 2163 RPM

CLASS III 2720 RPM



CFM	OV FPM	1/4" SP		1/2" SP		3/4" SP		1" SP		1-1/2" SP		2" SP		2-1/2" SP		3" SP		3-1/2" SP		4" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
4000	774	434	0.27	499	0.43	562	0.60	621	0.79	729	1.23	828	1.71	958	2.86	1033	3.49	1104	4.16	1172	4.86
5700	1103	561	0.55	617	0.78	664	1.01	708	1.23	797	1.72	880	2.26	1030	3.73	1096	4.41	1159	5.14	1219	5.91
7400	1431	698	1.00	743	1.29	786	1.59	825	1.89	895	2.48	963	3.08	1030	3.73	1096	4.41	1159	5.14	1219	5.91
9100	1760	840	1.69	876	2.03	913	2.39	948	2.76	1013	3.50	1071	4.22	1126	4.95	1181	5.70	1236	6.48	1291	7.29
10800	2089	984	2.66	1015	3.06	1046	3.48	1076	3.90	1136	4.78	1191	5.66	1240	6.51	1288	7.37	1334	8.23	13819	12
12500	2418	1129	3.98	1156	4.43	1183	4.90	1210	5.38	1263	6.37	1314	7.40	1362	8.41	1406	9.41	1448	10.40	14891	13.8
14200	2747	1276	5.68	1300	6.19	1324	6.72	1347	7.25	1394	8.35	1440	9.49	1485	10.65	1528	11.81	1569	12.96	16071	14.8
15900	3075	1423	7.83	1445	8.40	1466	8.98	1487	9.57	1529	10.78	1571	12.03	1612	13.31	1652	14.61	1692	15.91	1729	17.20
17600	3404	1571	10.47	1590	11.11	1610	11.75	1629	12.39	1667	13.71	1705	15.06	1742	16.45	1780	17.87	1816	19.30	18522	0.75
19300	3733	1719	13.67	1737	14.37	1754	15.06	1772	15.77	1807	17.20	1842	18.66	1876	20.15	1910	21.67	1944	23.23	19782	4.80
21000	4062	1867	17.48	1884	18.23	1900	18.99	1916	19.75	1949	21.29	1981	22.86	2012	24.46	2044	26.09	2075	27.75	21072	9.43
22700	4391	2016	21.94	2031	22.74	2046	23.57	2061	24.39	2091	26.04	2121	27.73	2150	29.44	2180	31.17	2209	32.94	2238	34.72
24400	4720	2164	27.11	2179	27.98	2193	28.86	2207	29.74	2235	31.51	2263	33.31	2290	35.13	2318	36.97	2345	38.84	2372	40.74
26100	5048	2313	33.05	2326	33.98	2340	34.92	2353	35.85	2379	37.74	2405	39.65	2431	41.59	2457	43.54	2482	45.52	2508	47.52
27800	5377	2462	39.81	2475	40.79	2487	41.78	2500	42.79	2524	44.79	2549	46.82	2573	48.87	2597	50.93	2622	53.02	2646	55.13
29500	5706	2611	47.44	2623	48.48	2635	49.52	2647	50.59	2670	52.71	2693	54.86	2716	57.02						

CFM	OV FPM	5" SP		6" SP		7" SP		8" SP		10" SP		12" SP		14" SP		16" SP		18" SP		20" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
7000	1354	1324	7.24	1436	8.94																
8700	1683	1379	8.65	1480	10.49	1577	12.44	1671	14.48	1847	18.75										
10400	2012	1454	10.46	1547	12.40	1636	14.46	1721	16.63	1885	21.24	2041	26.15	2188	31.27						
12100	2340	1545	12.78	1628	14.83	1711	16.99	1790	19.25	1942	24.08	2087	29.26	2225	34.74	2359	40.47	2487	46.38	2609	52.43
13800	2669	1653	15.59	1725	17.82	1798	20.10	1871	22.48	2014	27.49	2149	32.88	2279	38.60	2404	44.60	2525	50.87	2643	57.36
15500	2998	1770	18.89	1836	21.34	1901	23.81	1966	26.34	2096	31.60	2224	37.17	2346	43.08	2464	49.30	2579	55.81	2690	62.57
17200	3327	1892	22.66	1955	25.38	2015	28.10	2074	30.83	2190	36.41	2308	42.24	2424	48.34	2536	54.75	2645	61.45		
18900	3656	2014	26.89	2076	29.95	2134	32.95	2190	35.93	2296	41.93	2403	48.08	2509	54.45	2616	61.06	2720	67.95		
20600	3985	2139	31.65	2199	35.02	2256	38.35	2310	41.64	2411	48.14	2509	54.69	2606	61.38	2704	68.28				
22300	4313	2266	37.01	2323	40.66	2379	44.31	2432	47.93	2530	55.02	2623	62.06	2713	69.15						
24000	4642	2395	43.06	2450	46.95	2503	50.88	2555	54.81	2652	62.57										
25700	4971	2527	49.87	2578	53.98	2629	58.16	2679	62.37												

CHICAGO BLOWER SINGLE WIDTH AIRFOIL

SIZE
300 RA

29-1/8 In. Wheel Diameter
5.17 Sq. Ft. Outlet Area
Peak BHP = 3.930 (RPM ÷ 1000)³
Tip Speed (fpm) = 7.63 x RPM

CLASS I 1663 RPM

CLASS II 2163 RPM

CLASS III 2720 RPM

CFM	OV FPM	1/4" SP		1/2" SP		3/4" SP		1" SP		1-1/2" SP		2" SP		2-1/2" SP		3" SP		3-1/2" SP		4" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
4000	774	402	0.25	478	0.43	544	0.63	605	0.84	724	1.33	856	2.38	942	3.06	1024	3.79	1100	4.54		
5700	1103	509	0.46	571	0.71	627	0.97	679	1.23	771	1.79	892	3.15	997	3.87	1063	4.62	1129	5.43	1195	6.30
7400	1431	625	0.79	676	1.10	724	1.42	769	1.76	852	2.44	927	3.15	997	3.87	1063	4.62	1129	5.43	1195	6.30
9100	1760	745	1.27	789	1.64	831	2.03	870	2.43	944	3.24	1013	4.08	1077	4.94	1138	5.81	1195	6.69	1250	7.59
10800	2089	868	1.95	907	2.38	943	2.83	978	3.29	1044	4.24	1107	5.20	1166	6.19	1223	7.19	1276	8.21	1328	9.24
12500	2418	994	2.86	1027	3.35	1060	3.86	1091	4.38	1151	5.45	1208	6.55	1262	7.66	1315	8.79	1365	9.94	1413	11.11
14200	2747	1120	4.03	1150	4.59	1179	5.16	1207	5.73	1262	6.92	1314	8.15	1364	9.40	1412	10.66	1459	11.93	1505	13.23
15900	3075	1247	5.51	1274	6.12	1301	6.75	1326	7.39	1376	8.70	1424	10.05	1470	11.42	1515	12.81	1559	14.22	1602	15.64
17600	3404	1375	7.32	1399	8.00	1424	8.69	1447	9.39	1493	10.81	1538	12.28	1581	13.77	1622	15.30	1663	16.83	1703	18.39
19300	3733	1503	9.50	1525	10.24	1548	10.99	1570	11.75	1612	13.30	1653	14.88	1694	16.50	1733	18.14	1771	19.81	1809	21.49
21000	4062	1631	12.09	1652	12.90	1673	13.71	1693	14.53	1733	16.20	1771	17.90	1809	19.64	1846	21.40	1882	23.19	1917	24.99
22700	4391	1760	15.13	1779	15.99	1799	16.87	1818	17.75	1855	19.54	1891	21.37	1926	23.22	1961	25.10	1995	27.01	2028	28.94
24400	4720	1889	18.64	1907	19.57	1925	20.51	1943	21.46	1978	23.37	2012	25.31	2045	27.29	2078	29.28	2110	31.31	2141	33.36
26100	5048	2018	22.68	2035	23.67	2052	24.67	2069	25.68	2101	27.71	2134	29.78	2165	31.87	2196	33.99	2227	36.13	2257	38.30
27800	5377	2147	27.26	2163	28.32	2179	29.38	2195	30.45	2226	32.61	2256	34.80	2286	37.01	2316	39.25	2345	41.51	2373	43.80
29500	5706	2277	32.43	2292	33.55	2307	34.68	2322	35.81	2351	38.09	2380	40.41	2408	42.74	2436	45.10	2464	47.48	2491	49.89

CFM	OV FPM	5" SP		6" SP		7" SP		8" SP		10" SP		12" SP		14" SP		16" SP		18" SP		20" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
7000	1354	1317	7.89																		
8700	1683	1345	9.15	1458	11.27	1565	13.51	1664	15.78												
10400	2012	1407	10.87	1501	12.99	1595	15.27	1689	17.76	1870	23.07	2033	28.50								
12100	2340	1486	12.95	1573	15.29	1656	17.68	1737	20.15	1898	25.54	2058	31.52	2210	37.79	2350	44.12				
13800	2669	1571	15.27	1654	17.88	1733	20.53	1808	23.21	1952	28.73	2093	34.66	2235	41.19	2374	48.14	2507	55.30	2632	62.53
15500	2998	1662	17.87	1741	20.74	1816	23.66	1889	26.61	2025	32.61	2154	38.75	2279	45.22	2405	52.19	2532	59.66	2655	67.48
17200	3327	1757	20.79	1833	23.92	1905	27.09	1974	30.31	2105	36.86	2229	43.51	2345	50.28	2459	57.28	2572	64.65	2686	72.51
18900	3656	1857	24.07	1929	27.46	1997	30.89	20													

CHICAGO BLOWER SINGLE WIDTH AIRFOIL

SIZE
365

35-9/16 In. Wheel Diameter
7.66 Sq. Ft. Outlet Area
Peak BHP = 9.889 (RPM ÷ 1000)³
Tip Speed (fpm) = 9.31 x RPM

CLASS I 1318 RPM

CLASS II 1715 RPM

CLASS III 2157 RPM

CFM	OV FPM	1/4" SP		1/2" SP		3/4" SP		1" SP		1-1/2" SP		2" SP		2-1/2" SP		3" SP		3-1/2" SP		4" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
5000	653	309	0.29	373	0.50	430	0.72	483	0.98	582	1.59	690	2.91	760	3.74	827	4.65				
7500	979	406	0.62	453	0.91	496	1.21	539	1.52	617	2.18	746	3.98	805	4.85	860	5.78	914	6.78	967	7.85
10000	1305	512	1.17	550	1.55	585	1.94	618	2.34	683	3.14	818	5.44	870	6.46	920	7.51	968	8.58	1014	9.69
12500	1632	621	2.04	653	2.50	684	2.97	712	3.45	767	4.44	818	5.44	870	6.46	920	7.51	968	8.58	1014	9.69
15000	1958	733	3.29	761	3.83	787	4.38	812	4.95	860	6.11	906	7.29	949	8.48	992	9.69	1035	10.92	1077	12.16
17500	2285	847	5.00	871	5.62	894	6.26	917	6.90	960	8.23	1000	9.59	1040	10.96	1078	12.34	1115	13.74	1152	15.15
20000	2611	961	7.25	982	7.96	1003	8.67	1024	9.40	1062	10.88	1100	12.41	1135	13.96	1170	15.52	1204	17.10	1237	18.68
22500	2937	1076	10.12	1095	10.91	1114	11.71	1132	12.51	1168	14.16	1202	15.84	1235	17.56	1267	19.30	1298	21.05	1329	22.82
25000	3264	1191	13.68	1209	14.55	1226	15.43	1243	16.32	1275	18.13	1307	19.97	1337	21.85	1367	23.75	1396	25.68	1425	27.63
27500	3590	1307	18.01	1323	18.96	1339	19.93	1354	20.90	1384	22.87	1414	24.87	1442	26.91	1470	28.97	1497	31.07	1524	33.18
30000	3916	1423	23.18	1438	24.22	1452	25.27	1467	26.33	1495	28.46	1522	30.63	1549	32.82	1575	35.05	1600	37.30	1625	39.58
32500	4243	1539	29.28	1553	30.41	1566	31.54	1580	32.68	1606	34.98	1631	37.31	1656	39.66	1681	42.05	1705	44.46	1728	46.89
35000	4569	1655	36.38	1668	37.59	1681	38.81	1693	40.03	1718	42.49	1742	44.99	1765	47.51	1788	50.05	1811	52.62	1833	55.22
37500	4896	1772	44.56	1784	45.85	1796	47.15	1807	48.46	1830	51.09	1853	53.75	1875	56.43	1897	59.14	1918	61.87	1940	64.62
40000	5222	1888	53.88	1900	55.26	1911	56.65	1922	58.04	1943	60.84	1965	63.66	1986	66.51	2007	69.38	2027	72.27	2047	75.19
42500	5548	2005	64.44	2016	65.91	2026	67.38	2036	68.85	2057	71.82	2077	74.81	2097	77.82	2117	80.86	2136	83.91	2156	86.99

CFM	OV FPM	5" SP		6" SP		7" SP		8" SP		10" SP		12" SP		14" SP		16" SP		18" SP		20" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
10000	1305	1070	10.20	1164	12.69																
12500	1632	1102	12.05	1187	14.64	1271	17.49	1352	20.50												
15000	1958	1159	14.72	1235	17.40	1308	20.24	1379	23.26	1520	29.93	1653	37.19								
17500	2285	1225	18.02	1296	20.95	1365	23.97	1430	27.10	1555	33.77	1677	41.10	1796	49.14	1910	57.62	2018	66.35		
20000	2611	1302	21.89	1366	25.14	1430	28.46	1492	31.83	1609	38.83	1720	46.25	1827	54.22	1934	62.80	2038	71.99	2139	81.60
22500	2937	1388	26.38	1446	29.97	1503	33.62	1560	37.31	1671	44.84	1777	52.65	1877	60.80	1974	69.40	2069	78.51		
25000	3264	1480	31.54	1533	35.50	1585	39.48	1637	43.51	1739	51.69	1840	60.05	1936	68.63	2028	77.52	2117	86.77		
27500	3590	1575	37.46	1625	41.77	1674	46.12	1722	50.49	1816	59.34	1909	68.34	2001	77.51	2090	86.88				
30000	3916	1674	44.19	1721	48.86	1767	53.57	1811	58.30	1899	67.84	1985	77.52	2070	87.32	2155	97.30				
32500	4243	1774	51.84	1819	56.85	1862	61.91	1905	67.01	1987	77.27	2068	87.63	2147	98.12						
35000	4569	1877	60.48	1919	65.82	1960	71.23	2001	76.68	2079	87.65	2155	98.74								
37500	4896	1981	70.20	2021	75.87	2061	81.60	2099	87.40												

CHICAGO BLOWER SINGLE WIDTH AIRFOIL

SIZE
365 RA

35-9/16 In. Wheel Diameter
7.66 Sq. Ft. Outlet Area
Peak BHP = 10.507 (RPM ÷ 1000)³
Tip Speed (fpm) = 9.31 x RPM

CLASS I 1318 RPM

CLASS II 1715 RPM

CLASS III 2157 RPM

CFM	OV FPM	1/4" SP		1/2" SP		3/4" SP		1" SP		1-1/2" SP		2" SP		2-1/2" SP		3" SP		3-1/2" SP		4" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
5000	653	300	0.3	368	0.5	430	0.8	492	1.1												
7500	979	382	0.5	437	0.9	486	1.2	531	1.6	614	2.3	698	3.2	775	4.2						
10000	1305	471	0.9	519	1.4	561	1.8	599	2.3	671	3.2	736	4.1	798	5.2	860	6.3	924	7.5	984	8.8
12500	1632	567	1.6	607	2.1	645	2.6	679	3.1	741	4.3	800	5.4	855	6.6	907	7.8	957	9.0	1006	10.3
15000	1958	666	2.4	699	3.0	732	3.7	764	4.3	821	5.6	874	6.9	923	8.3	972	9.7	1018	11.1	1061	12.5
17500	2285	767	3.6	795	4.3	823	5.0	852	5.8	906	7.2	954	8.8	1000	10.3	1043	11.9	1086	13.5	1127	15.1
20000	2611	869	5.2	894	5.9	918	6.7	943	7.6	992	9.2	1039	11.0	1081	12.7	1122	14.4	1161	16.2	1198	18.0
22500	2937	972	7.1	994	8.0	1016	8.9	1038	9.8	1081	11.6	1125	13.5	1166	15.5	1205	17.4	1241	19.4	1276	21.4
25000	3264	1076	9.5	1095	10.5	1115	11.5	1134	12.5	1174	14.5	1213	16.6	1252	18.7	1289	20.9	1324	23.0	1358	25.2
27500	3590	1179	12.4	1197	13.5	1215	14.6	1233	15.7	1269	17.9	1304	20.2	1340	22.5	1376	24.8	1410	27.1	1442	29.5
30000	3916	1283	15.9	1300	17.1	1316	18.3	1333	19.4	1365	21.8	1398	24.3	1431	26.8	1464	29.3	1496	31.8	1528	34.4
32500	4243	1388	20.0	1403	21.3	1418	22.6	1433	23.8	1463	26.4	1493	29.0	1524	31.7	1554	34.4	1585	37.1	1614	39.9
35000	4569	1492	24.8	1506	26.2	1520	27.5	1534	28.9	1562	31.6	1590	34.4	1618	37.3	1647	40.2	1675	43.1	1703	46.0
37500	4896	1597	30.3	1610	31.8	1623	33.2	1636	34.7	1662	37.6	1689	40.6	1715	43.6	1741	46.7	1767	49.7	1794	52.9
40000	5222	1702	36.6	1714	38.1	1726	39.7	1739	41.2	1763	44.3	1788	47.5	1812	50.7	1837	53.9	1861	57.2	1886	60.5
42500	5548	1806	43.7	1818	45.3	1830	46.9	1841	48.6	1864	51.9	1887	55.2	1911	58.6	1934	62.0	1957	65.5	1980	68.9

CFM	OV FPM	5" SP		6" SP		7" SP		8" SP		10" SP		12" SP		14" SP		16" SP		18" SP		20" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
12500	1632	1107	13.2	1206	16.4	1296	19.6														
15000	1958	1145	15.5	1227	18.6	1312	22.1	1396	25.9	1550	33.6										
17500	2285	1205	18.4	1279	21.8	1349	25.3	1420	29.0	1565	37.2	1705	46.1	1831	55.1						
20000	2611	1272	21.7	1342	25.5	1408	29.3	1472	33.2	1595	41.3	1721	50.3	1847	60.2	1967	70.5	2078	80.8		
22500	2937	1344	25.4	1410	29.6	1473	33.8	1534	38.0	1649	46.7	1758	55.7	1869	65.4	1982	76.1	2094	87.4		
25000	3264	1422	29.6	1483	34.1	1542	38.7	1600	43.3	1711	52.8	1814	62.3	1914	72.2	2012	82.7	2113	93.9		
27500	3590	1503	34.3	1561	39.2	1617	44.1	1671	49.1	1777	59.3	1877	69.7	1972	80.2	2063	91.0	2153	102.1		
30000	3916	1587	39.6	1643	44.8	1696	50.1	1747	55.4	1847	66.4	1943	77.6	2035	88.9	2123	100.3				
32500	4243	1672	45.4	1726	51.0	1778	56.7	1827	62.4	1921	74.1	2013	86.0	2101	98.1						
35000	4569	1758	52.0	1811	58.0	1861															

CHICAGO BLOWER SINGLE WIDTH AIRFOIL

CLASS I 1141 RPM

SIZE 402

39-3/8 In. Wheel Diameter
 9.31 Sq. Ft. Outlet Area
 Peak BHP = 17.968 (RPM ÷ 1000)³
 Tip Speed (fpm) = 10.31 x RPM

CLASS II 1483 RPM

CLASS III 1866 RPM

CFM	OV FPM	1/4" SP		1/2" SP		3/4" SP		1" SP		1-1/2" SP		2" SP		2-1/2" SP		3" SP		3-1/2" SP		4" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
8000	859	321	0.6	369	0.9	412	1.2	453	1.6	527	2.3	597	3.2	661	4.1	741	6.3	792	7.5	842	8.8
11000	1182	407	1.1	446	1.5	481	2.0	514	2.4	576	3.3	635	4.3	689	5.3	747	8.2	830	9.4	873	10.7
14000	1504	499	2.0	529	2.5	560	3.0	590	3.6	642	4.8	692	5.9	740	7.0	787	8.2	830	9.4	873	10.7
17000	1826	594	3.2	619	3.8	644	4.4	670	5.1	718	6.5	762	7.9	803	9.3	844	10.7	884	12.1	923	13.5
20000	2148	690	5.0	711	5.7	733	6.4	755	7.1	798	8.7	839	10.3	877	12.0	913	13.7	948	15.3	983	16.9
23000	2470	788	7.4	806	8.1	825	8.9	843	9.7	881	11.5	919	13.3	955	15.2	989	17.1	1021	19.0	1052	20.9
26000	2793	886	10.4	902	11.3	919	12.1	935	13.0	968	14.9	1002	16.9	1035	19.0	1067	21.1	1098	23.2	1127	25.4
29000	3115	985	14.2	999	15.2	1014	16.1	1029	17.1	1058	19.1	1088	21.3	1118	23.5	1148	25.8	1177	28.2	1205	30.6
32000	3437	1084	18.9	1097	19.9	1110	21.0	1124	22.0	1150	24.2	1177	26.5	1204	28.9	1231	31.3	1259	33.9	1285	36.5
35000	3759	1183	24.5	1195	25.7	1207	26.8	1219	27.9	1244	30.3	1268	32.7	1292	35.2	1317	37.8	1342	40.5	1367	43.3
38000	4082	1282	31.2	1294	32.4	1305	33.6	1316	34.8	1338	37.4	1360	39.9	1383	42.6	1406	45.4	1429	48.2	1452	51.1
41000	4404	1382	39.0	1392	40.3	1403	41.6	1413	42.9	1434	45.6	1454	48.3	1475	51.2	1496	54.1	1517	57.0	1538	60.1
44000	4726	1482	47.9	1491	49.3	1501	50.7	1511	52.2	1530	55.0	1549	57.9	1568	60.9	1588	64.0	1607	67.1	1627	70.3
47000	5048	1581	58.2	1591	59.7	1600	61.2	1609	62.7	1627	65.8	1645	68.8	1663	72.0	1681	75.2	1699	78.5	1717	81.8
50000	5371	1681	69.9	1690	71.5	1698	73.1	1707	74.7	1724	77.9	1741	81.1	1758	84.5	1774	87.8	1791	91.3	1808	94.8
53000	5693	1781	83.1	1789	84.7	1797	86.4	1805	88.1	1821	91.5	1837	94.9	1853	98.4						

CFM	OV FPM	5" SP		6" SP		7" SP		8" SP		10" SP		12" SP		14" SP		16" SP		18" SP		20" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
15000	1611	966	14.3	1042	17.4	1117	20.7	1187	24.2												
18000	1933	1014	17.5	1082	20.7	1147	24.1	1210	27.6	1335	35.4	1452	43.8								
21000	2256	1071	21.6	1134	25.0	1195	28.6	1253	32.2	1364	40.1	1472	48.8	1578	58.1	1678	67.9				
24000	2578	1135	26.3	1193	30.2	1250	34.1	1305	38.0	1409	46.2	1508	55.0	1603	64.4	1698	74.5	1790	85.2		
27000	2900	1208	31.5	1260	36.0	1312	40.4	1363	44.8	1462	53.6	1556	62.7	1645	72.3	1731	82.5	1816	93.2		
30000	3222	1284	37.4	1333	42.4	1381	47.3	1428	52.2	1520	62.0	1610	71.8	1695	81.8	1777	92.2	1856	103.2		
33000	3545	1363	44.0	1410	49.5	1455	55.0	1499	60.4	1584	71.3	1668	82.0	1750	92.7	1828	103.6				
36000	3867	1443	51.6	1489	57.5	1533	63.4	1574	69.4	1654	81.3	1732	93.1	1809	104.8						
39000	4189	1525	60.1	1569	66.4	1611	72.8	1652	79.2	1728	92.2	1801	105.1								
42000	4511	1609	69.8	1651	76.4	1691	83.2	1731	90.1	1805	104.0										
45000	4834	1695	80.7	1734	87.6	1773	94.8	1811	102.1												
48000	5156	1783	92.9	1820	100.2	1856	107.7														

CHICAGO BLOWER SINGLE WIDTH AIRFOIL

CLASS I 1141 RPM

SIZE 402 RA

39-3/8 In. Wheel Diameter
 9.31 Sq. Ft. Outlet Area
 Peak BHP = 17.482 (RPM ÷ 1000)³
 Tip Speed (fpm) = 10.31 x RPM

CLASS II 1483 RPM

CLASS III 1866 RPM

CFM	OV FPM	1/4" SP		1/2" SP		3/4" SP		1" SP		1-1/2" SP		2" SP		2-1/2" SP		3" SP		3-1/2" SP		4" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
8000	859	315	0.5	368	0.9	416	1.3	459	1.7	546	2.6	625	3.6	708	5.8	771	7.2	829	8.6		
11000	1182	392	0.9	438	1.4	477	1.9	515	2.4	583	3.4	645	4.5	748	7.3	797	8.7	846	10.2	897	11.8
14000	1504	475	1.6	514	2.1	549	2.7	582	3.4	641	4.6	697	5.9	748	7.3	797	8.7	846	10.2	897	11.8
17000	1826	561	2.5	593	3.2	625	3.9	655	4.6	709	6.1	758	7.6	806	9.2	851	10.8	893	12.4	934	14.1
20000	2148	650	3.7	677	4.5	705	5.3	732	6.2	782	7.9	827	9.6	870	11.4	911	13.3	951	15.1	989	17.0
23000	2470	740	5.3	764	6.3	787	7.2	811	8.1	858	10.1	901	12.1	940	14.1	978	16.1	1014	18.2	1050	20.3
26000	2793	831	7.4	852	8.5	872	9.5	893	10.6	935	12.7	976	14.9	1014	17.2	1050	19.4	1083	21.7	1116	24.1
29000	3115	922	10.0	941	11.2	959	12.3	978	13.5	1016	15.9	1053	18.3	1090	20.8	1124	23.3	1156	25.8	1187	28.3
32000	3437	1014	13.2	1031	14.5	1048	15.7	1065	17.0	1099	19.6	1133	22.3	1167	25.0	1199	27.7	1231	30.4	1261	33.2
35000	3759	1106	17.1	1121	18.4	1137	19.8	1152	21.1	1183	24.0	1214	26.8	1246	29.8	1277	32.7	1307	35.7	1336	38.7
38000	4082	1198	21.6	1212	23.0	1226	24.5	1241	26.0	1269	29.0	1298	32.1	1327	35.2	1355	38.4	1384	41.6	1412	44.9
41000	4404	1290	26.8	1304	28.4	1317	30.0	1330	31.6	1356	34.8	1383	38.1	1409	41.5	1436	44.9	1463	48.3	1489	51.8
44000	4726	1383	32.9	1395	34.6	1408	36.3	1420	38.0	1445	41.5	1469	45.0	1494	48.5	1519	52.1	1544	55.8	1568	59.5
47000	5048	1475	39.8	1487	41.6	1499	43.5	1510	45.3	1533	49.0	1556	52.7	1579	56.5	1602	60.3	1626	64.1	1649	68.1
50000	5371	1568	47.7	1579	49.6	1590	51.6	1601	53.5	1623	57.4	1644	61.3	1666	65.3	1688	69.4	1709	73.4	1731	77.5
53000	5693	1661	56.6	1671	58.6	1682	60.7	1692	62.7	1712	66.8	1733	71.0	1753	75.2	1774	79.4	1794	83.7	1815	88.1

CFM	OV FPM	5" SP		6" SP		7" SP		8" SP		10" SP		12" SP		14" SP		16" SP		18" SP		20" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
15000	1611	999	16.0	1088	19.8	1169	23.7														
18000	1933	1028	18.6	1105	22.5	1183	26.8	1259	31.3	1397	40.6										
21000	2256	1080	22.1	1147	26.1	1212	30.3	1278	34.9	1412	45.0	1538	55.8								
24000	2578	1139	26.0	1202	30.5	1263	35.1	1321	39.7	1435	49.7	1551	60.8	1667	72.9	1775	85.2				
27000	2900	1202	30.3	1262	35.3	1319	40.4	1375	45.5	1479	55.9	1581	66.9	1683	79.0	1788	92.0				
30000	3222	1270	35.2	1326	40.6	1380	46.2	1433	51.8	1534	63.1	1628	74.7	1719	86.7	1810	99.5				
33000	3545	1341	40.7	1394	46.6	1445	52.5	1495	58.6	1591	70.9	1683	83.4	1769	96.1	1852	109.1				
36000	3867	1415	46.9	1466	53.2	1514	59.6	1561	66.0	1652	79.2	1740	92.7	1824	106.3						
39000	4189	1490	53.8	1539	60.5	1586	67.3	1631	74.2	1717	88.3	1801	102.6								
42000	4511	1566	61.4	1614	68.6	1659	75.9	1703	83.2	1786	98.1	1865	113.3								
45000	4834	1643	69.8	1690	77.5	1734	85.3	1777	93.0	1857	108.8										
48000	5156	1722	79.2	1767	87.3	1810	95.5	18													

CHICAGO BLOWER SINGLE WIDTH AIRFOIL

SIZE
445

43-7/16 In. Wheel Diameter
11.390 Sq. Ft. Outlet Area
Peak BHP = 29.360 (RPM ÷ 1000)³
Tip Speed (fpm) = 11.37 x RPM

CLASS I 1043 RPM

CLASS II 1360 RPM

CLASS III 1706 RPM

CFM	OV FPM	1/4" SP		1/2" SP		3/4" SP		1" SP		1-1/2" SP		2" SP		2-1/2" SP		3" SP		3-1/2" SP		4" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
9000	790	277	0.6	321	1.0	363	1.3	401	1.7	472	2.6	538	3.6	620	6.2	669	7.5	716	8.9	761	10.4
13000	1141	360	1.2	396	1.8	429	2.3	459	2.8	517	3.9	570	5.0	670	8.5	712	9.9	752	11.4	790	13.0
17000	1493	451	2.4	479	3.0	507	3.7	533	4.4	581	5.8	626	7.2	696	11.6	770	13.3	806	15.0	841	16.7
21000	1844	545	4.1	568	4.8	590	5.6	613	6.4	657	8.1	696	9.9	733	11.6	770	13.3	806	15.0	841	16.7
25000	2195	641	6.6	660	7.4	679	8.3	698	9.2	737	11.1	773	13.2	807	15.2	839	17.3	870	19.4	901	21.4
29000	2546	739	9.9	755	10.8	771	11.8	787	12.8	820	15.0	853	17.3	885	19.7	915	22.0	944	24.4	972	26.8
33000	2897	836	14.3	850	15.3	864	16.4	879	17.6	907	19.9	936	22.4	966	25.0	994	27.7	1022	30.4	1048	33.1
37000	3248	934	19.8	947	21.0	960	22.2	972	23.4	997	26.0	1023	28.7	1049	31.5	1075	34.4	1101	37.4	1126	40.4
41000	3600	1033	26.7	1044	28.0	1056	29.3	1067	30.7	1090	33.4	1113	36.3	1136	39.3	1159	42.4	1183	45.6	1206	48.9
45000	3951	1131	35.0	1142	36.4	1152	37.9	1162	39.3	1183	42.3	1204	45.4	1225	48.6	1246	51.9	1268	55.3	1289	58.7
49000	4302	1230	44.9	1240	46.4	1249	48.0	1259	49.6	1278	52.8	1297	56.1	1316	59.5	1335	63.0	1355	66.5	1374	70.2
53000	4653	1329	56.5	1338	58.2	1347	59.9	1356	61.6	1373	65.0	1391	68.6	1408	72.2	1426	75.8	1444	79.6	1462	83.5
57000	5004	1428	70.0	1436	71.8	1445	73.6	1453	75.5	1469	79.1	1485	82.9	1502	86.7	1518	90.6	1535	94.6	1551	98.6
61000	5356	1527	85.5	1535	87.4	1543	89.4	1550	91.3	1566	95.3	1581	99.3	1596	103.3	1611	107.4	1627	111.6	1642	115.8
65000	5707	1626	103.2	1633	105.2	1641	107.3	1648	109.4	1662	113.6	1677	117.8	1691	122.0	1705	126.4				

CFM	OV FPM	5" SP		6" SP		7" SP		8" SP		10" SP		12" SP		14" SP		16" SP		18" SP		20" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
17000	1493	865	16.4	938	20.1	1006	24.0														
21000	1844	907	20.3	970	24.1	1031	28.1	1090	32.5	1206	41.9	1312	51.8								
25000	2195	962	25.5	1020	29.6	1076	33.8	1129	38.3	1231	47.8	1331	58.4	1428	69.7						
29000	2546	1025	31.6	1078	36.3	1130	41.0	1180	45.8	1275	55.7	1364	66.4	1452	77.9	1538	90.2	1622	103.2	1702	116.6
33000	2897	1097	38.6	1144	44.0	1191	49.4	1237	54.8	1327	65.5	1412	76.7	1492	88.4	1570	100.8	1647	113.9		
37000	3248	1173	46.5	1218	52.6	1260	58.7	1302	64.9	1385	76.9	1466	88.9	1543	101.2	1616	114.0	1687	127.3		
41000	3600	1252	55.6	1294	62.3	1335	69.1	1374	75.9	1450	89.4	1525	102.7	1598	116.0	1668	129.5				
45000	3951	1332	65.9	1373	73.3	1412	80.7	1449	88.1	1521	103.1	1590	117.9	1658	132.5						
49000	4302	1414	77.8	1453	85.7	1491	93.7	1527	101.8	1595	118.0	1660	134.2								
53000	4653	1498	91.5	1535	99.7	1571	108.3	1606	116.9	1672	134.4										
57000	5004	1585	107.0	1619	115.7	1653	124.6														
61000	5356	1673	124.6	1705	133.6																

CHICAGO BLOWER SINGLE WIDTH AIRFOIL

SIZE
445 RA

43-7/16 In. Wheel Diameter
11.390 Sq. Ft. Outlet Area
Peak BHP = 27.486 (RPM ÷ 1000)³
Tip Speed (fpm) = 11.37 x RPM

CLASS I 1043 RPM

CLASS II 1360 RPM

CLASS III 1706 RPM

CFM	OV FPM	1/4" SP		1/2" SP		3/4" SP		1" SP		1-1/2" SP		2" SP		2-1/2" SP		3" SP		3-1/2" SP		4" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
9000	790	281	0.6	333	1.0	381	1.5	425	2.0	506	3.3										
13000	1141	360	1.2	402	1.7	440	2.3	475	3.0	542	4.3	604	5.9	662	7.6	718	9.5				
17000	1493	446	2.1	481	2.8	513	3.6	543	4.4	599	5.9	652	7.6	702	9.4	750	11.4	797	13.5	842	15.7
21000	1844	535	3.5	565	4.4	592	5.3	619	6.2	668	8.1	714	10.0	758	12.0	801	14.1	842	16.3	882	18.6
25000	2195	626	5.4	652	6.5	676	7.5	699	8.6	743	10.9	785	13.1	825	15.4	863	17.7	900	20.1	936	22.5
29000	2546	718	8.0	741	9.2	763	10.5	784	11.7	823	14.3	861	16.9	897	19.5	932	22.1	966	24.7	999	27.4
33000	2897	812	11.4	832	12.8	851	14.2	870	15.6	906	18.5	941	21.4	974	24.3	1006	27.3	1037	30.2	1068	33.2
37000	3248	905	15.7	923	17.2	941	18.8	958	20.4	992	23.5	1023	26.8	1054	30.1	1084	33.4	1113	36.7	1141	40.0
41000	3600	999	21.0	1016	22.7	1032	24.4	1048	26.1	1079	29.6	1108	33.2	1137	36.8	1164	40.4	1191	44.1	1217	47.7
45000	3951	1093	27.3	1109	29.2	1124	31.1	1138	33.0	1167	36.8	1194	40.7	1221	44.6	1247	48.5	1272	52.5	1297	56.5
49000	4302	1188	34.9	1202	36.9	1216	39.0	1230	41.0	1256	45.2	1282	49.3	1307	53.6	1331	57.8	1355	62.2	1378	66.5
53000	4653	1283	43.8	1296	46.0	1309	48.2	1321	50.4	1346	54.9	1370	59.4	1394	63.9	1417	68.5	1439	73.1	1461	77.8
57000	5004	1378	54.2	1390	56.5	1402	58.9	1414	61.2	1437	66.0	1460	70.8	1482	75.7	1504	80.6	1525	85.5	1546	90.5
61000	5356	1473	66.0	1484	68.5	1495	71.0	1507	73.6	1529	78.6	1550	83.8	1571	89.0	1592	94.2	1612	99.4	1632	104.7
65000	5707	1568	79.5	1579	82.2	1589	84.9	1600	87.5	1620	92.9	1641	98.4	1661	103.9	1680	109.4				
69000	6058	1663	94.8	1673	97.6	1683	100.4	1693	103.3												

CFM	OV FPM	5" SP		6" SP		7" SP		8" SP		10" SP		12" SP		14" SP		16" SP		18" SP		20" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
17000	1493	928	20.6																		
21000	1844	959	23.6	1033	29.0	1103	34.9	1170	41.1												
25000	2195	1005	27.7	1071	33.3	1136	39.2	1199	45.6	1318	59.4	1429	74.5								
29000	2546	1062	33.0	1123	38.8	1181	45.0	1239	51.5	1349	65.4	1455	80.8	1556	97.4	1651	114.9				
33000	2897	1126	39.3	1182	45.5	1237	52.0	1289	58.8	1392	73.1	1490	88.6	1585	105.4	1676	123.3				
37000	3248	1196	46.6	1248	53.4	1299	60.3	1348	67.4	1443	82.4	1535	98.3	1624	115.3						
41000	3600	1269	55.0	1318	62.4	1366	69.9	1412	77.5	1502	93.2	1587	109.7	1671	127.2						
45000	3951	1345	64.6	1391	72.6	1436	80.7	1480	88.8	1565	105.5	1646	122.8								
49000	4302	1424	75.2	1467	84.0	1510	92.7	1552	101.5	1632	119.3										
53000	4653	1504	87.2	1546	96.6	1586	106.1	1626	115.5	1703	134.6										
57000	5004	1587	100.5	1626	110.6	1665	120.8	1703	131.0												
61000	5356	1671	115.4																		

Performance shown is for installation type B - Free inlet, Ducted outlet.
Performance ratings do not include the effects of appurtenances in the air stream.

Power ratings (BHP) do not include drive losses.

CHICAGO BLOWER SINGLE WIDTH AIRFOIL

CLASS I 939 RPM
CLASS II 1224 RPM
CLASS III 1535 RPM

SIZE 490

48 In. Wheel Diameter
 13.80 Sq. Ft. Outlet Area
 Peak BHP = 48.374 (RPM ÷ 1000)³
 Tip Speed (fpm) = 12.57 x RPM

CFM	OV FPM	1/4" SP		1/2" SP		3/4" SP		1" SP		1-1/2" SP		2" SP		2-1/2" SP		3" SP		3-1/2" SP		4" SP			
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP		
10000	725	236	0.6	279	1.0	319	1.5	355	1.9	423	3.0	509	5.7	555	7.2	601	8.8	645	10.5	686	12.3		
15000	1087	312	1.4	346	2.0	376	2.6	405	3.2	459	4.4	516	6.7	558	8.3	599	9.9	638	11.6	674	13.4	710	15.3
20000	1449	395	2.6	422	3.4	448	4.2	472	5.0	516	6.7	558	8.3	599	9.9	638	11.6	674	13.4	710	15.3	755	19.7
25000	1812	482	4.7	503	5.5	524	6.5	546	7.5	585	9.5	621	11.6	656	13.6	690	15.7	723	17.7	755	19.7		
30000	2174	571	7.6	589	8.6	606	9.7	624	10.8	659	13.2	692	15.6	723	18.1	753	20.6	781	23.1	810	25.5		
35000	2536	661	11.7	676	12.9	691	14.1	706	15.3	736	17.9	766	20.7	795	23.5	823	26.4	849	29.3	874	32.2		
40000	2899	752	17.1	765	18.4	778	19.7	790	21.1	817	23.9	843	27.0	870	30.1	896	33.4	921	36.7	944	40.0		
45000	3261	843	24.0	854	25.4	866	26.9	877	28.4	900	31.5	923	34.8	947	38.2	971	41.7	994	45.4	1017	49.0		
50000	3623	934	32.5	944	34.1	955	35.8	965	37.4	986	40.8	1006	44.3	1027	47.9	1049	51.7	1070	55.6	1091	59.6		
55000	3986	1025	42.9	1035	44.7	1044	46.5	1054	48.2	1072	51.9	1091	55.7	1110	59.6	1129	63.6	1149	67.7	1168	72.0		
60000	4348	1117	55.4	1126	57.3	1134	59.2	1143	61.2	1160	65.1	1177	69.1	1194	73.3	1212	77.5	1229	81.9	1247	86.4		
65000	4710	1209	70.1	1217	72.1	1225	74.2	1232	76.3	1248	80.5	1264	84.8	1280	89.3	1296	93.8	1312	98.4	1328	103.1		
70000	5072	1300	87.2	1308	89.4	1315	91.6	1323	93.8	1337	98.4	1352	103.0	1367	107.7	1381	112.5	1396	117.3	1411	122.3		
75000	5435	1392	106.9	1399	109.2	1406	111.6	1413	114.0	1427	118.8	1440	123.7	1454	128.7	1468	133.8	1482	138.9	1496	144.1		
80000	5797	1484	129.4	1491	131.8	1497	134.4	1504	137.0	1517	142.1	1529	147.3										

CFM	OV FPM	5" SP		6" SP		7" SP		8" SP		10" SP		12" SP		14" SP		16" SP		18" SP		20" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
20000	1449	779	19.4	846	23.9	908	28.6														
25000	1812	815	24.0	873	28.6	929	33.6	984	38.9	1089	50.3										
30000	2174	865	30.4	918	35.3	969	40.5	1017	45.9	1111	57.5	1203	70.4	1290	84.1	1372	98.2				
35000	2536	923	38.0	971	43.7	1018	49.3	1064	55.1	1150	67.2	1232	80.2	1311	94.2	1390	109.2	1466	125.0		
40000	2899	989	46.6	1032	53.2	1075	59.8	1117	66.2	1198	79.3	1275	92.8	1348	107.1	1419	122.2	1489	138.2		
45000	3261	1060	56.5	1100	63.9	1139	71.4	1177	78.8	1252	93.4	1325	108.0	1395	123.0	1461	138.6	1526	154.8		
50000	3623	1132	67.8	1171	76.0	1207	84.3	1243	92.6	1312	109.1	1379	125.3	1446	141.5	1510	158.0				
55000	3986	1206	80.8	1244	89.8	1279	98.8	1313	107.9	1377	126.2	1440	144.3	1501	162.2						
60000	4348	1283	95.7	1318	105.4	1352	115.2	1385	125.0	1446	144.9	1505	164.8								
65000	4710	1361	112.9	1394	123.1	1426	133.5	1458	144.1	1518	165.5										
70000	5072	1441	132.5	1472	143.2	1502	154.2	1533	165.4												
75000	5435	1523	154.8																		

CHICAGO BLOWER SINGLE WIDTH AIRFOIL

CLASS I 939 RPM
CLASS II 1224 RPM
CLASS III 1535 RPM

SIZE 490 RA

48 In. Wheel Diameter
 13.80 Sq. Ft. Outlet Area
 Peak BHP = 45.287 (RPM ÷ 1000)³
 Tip Speed (fpm) = 12.57 x RPM

CFM	OV FPM	1/4" SP		1/2" SP		3/4" SP		1" SP		1-1/2" SP		2" SP		2-1/2" SP		3" SP		3-1/2" SP		4" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
10000	725	241	0.6	291	1.1	337	1.7	379	2.3												
15000	1087	313	1.3	352	1.9	387	2.6	421	3.4	483	5.0	541	6.9	595	9.0						
20000	1449	392	2.3	424	3.2	453	4.1	481	5.0	533	6.9	582	8.9	629	11.1	673	13.5	716	16.0	758	18.7
25000	1812	474	4.0	501	5.1	527	6.2	551	7.3	596	9.5	639	11.8	679	14.2	718	16.7	756	19.4	793	22.2
30000	2174	558	6.3	582	7.6	604	8.9	625	10.2	666	12.9	704	15.6	740	18.3	775	21.1	809	24.0	841	27.0
35000	2536	644	9.5	664	11.0	684	12.5	703	14.0	739	17.1	774	20.2	807	23.4	838	26.5	869	29.7	899	32.9
40000	2899	730	13.7	748	15.4	766	17.1	783	18.8	816	22.3	847	25.8	878	29.4	907	33.0	935	36.5	963	40.2
45000	3261	817	19.0	833	20.9	849	22.8	865	24.7	895	28.6	924	32.5	952	36.5	979	40.5	1005	44.6	1030	48.6
50000	3623	904	25.6	919	27.7	934	29.8	948	31.9	976	36.2	1002	40.5	1028	44.9	1053	49.3	1078	53.8	1101	58.2
55000	3986	991	33.6	1005	35.9	1019	38.2	1032	40.5	1058	45.2	1082	49.9	1106	54.7	1130	59.5	1153	64.4	1175	69.3
60000	4348	1079	43.2	1092	45.6	1104	48.1	1116	50.6	1140	55.7	1164	60.8	1186	66.0	1208	71.2	1230	76.5	1251	81.8
65000	4710	1167	54.4	1179	57.1	1190	59.8	1202	62.5	1224	68.0	1246	73.5	1267	79.1	1288	84.7	1308	90.3	1328	96.1
70000	5072	1255	67.5	1266	70.4	1277	73.3	1287	76.2	1308	82.1	1329	88.0	1349	93.9	1368	100.0	1388	106.0	1406	112.1
75000	5435	1343	82.6	1353	85.7	1363	88.8	1373	91.9	1393	98.1	1412	104.4	1431	110.8	1450	117.2	1468	123.7	1486	130.2
80000	5797	1431	99.8	1441	103.1	1450	106.4	1460	109.7	1478	116.3	1497	123.0	1515	129.8	1532	136.6				
85000	6159	1519	119.2	1529	122.7																

CFM	OV FPM	5" SP		6" SP		7" SP		8" SP		10" SP		12" SP		14" SP		16" SP		18" SP		20" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
20000	1449	836	24.7																		
25000	1812	863	28.2	931	34.9	995	42.0	1057	49.6												
30000	2174	905	33.3	966	40.0	1025	47.3	1082	55.0	1190	71.9										
35000	2536	957	39.7	1012	46.8	1066	54.3	1118	62.2	1219	79.3	1315	98.0	1406	118.2	1493	139.6				
40000	2899	1016	47.5	1067	55.1	1116	63.0	1164	71.2	1257	88.7	1347	107.7	1433	128.1	1516	150.0				
45000	3261	1080	56.7	1128	64.9	1174	73.3	1218	82.0	1305	100.3	1388	119.7	1468	140.4						
50000	3623	1148	67.2	1192	76.2	1236	85.3	1278	94.5	1359	113.7	1436	133.9	1512	155.2						
55000	3986	1218	79.1	1260	88.9	1301	98.8	1341	108.8	1417	129.1	1491	150.3								
60000	4348	1292	92.5	1331	103.2	1370	113.9	1407	124.7	1480	146.5										
65000	4710	1366	107.6	1404	119.2	1441	130.8	1476	142.4												
70000	5072	1443	124.4	1479	136.8	1513	149.3														
75000	5435	1521	143.3																		

Performance shown is for installation type B - Free inlet, Ducted outlet.
 Performance ratings do not include the effects of appurtenances in the air stream.

Power ratings (BHP) do not include drive losses.

CHICAGO BLOWER SINGLE WIDTH AIRFOIL

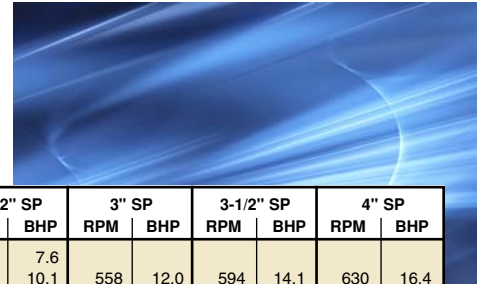
SIZE
542

52-7/8 In. Wheel Diameter
16.92 Sq. Ft. Outlet Area
Peak BHP = 78.462 (RPM ÷ 1000)³
Tip Speed (fpm) = 13.84 x RPM

CLASS I 858 RPM

CLASS II 1120 RPM

CLASS III 1404 RPM



CFM	OV FPM	1/4" SP		1/2" SP		3/4" SP		1" SP		1-1/2" SP		2" SP		2-1/2" SP		3" SP		3-1/2" SP		4" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
15000	887	246	1.1	280	1.7	311	2.3	341	2.9	395	4.3	446	5.8	494	7.6						
21000	1241	317	2.3	345	3.1	371	3.9	394	4.8	439	6.5	481	8.2	520	10.1	558	12.0	594	14.1	630	16.4
27000	1596	394	4.2	415	5.1	437	6.2	458	7.3	496	9.5	531	11.7	565	13.9	599	16.1	631	18.4	661	20.7
33000	1950	473	7.1	490	8.2	508	9.4	525	10.7	560	13.3	592	16.0	621	18.8	650	21.5	678	24.2	706	26.8
39000	2305	553	11.2	568	12.5	582	13.8	597	15.2	627	18.2	657	21.4	684	24.6	710	27.8	734	31.1	759	34.3
45000	2660	634	16.7	647	18.2	659	19.7	672	21.2	698	24.5	724	28.0	750	31.6	774	35.3	797	39.1	819	42.8
51000	3014	715	23.9	727	25.5	738	27.2	749	28.9	771	32.5	794	36.2	817	40.2	840	44.3	862	48.5	883	52.7
57000	3369	797	32.9	807	34.7	817	36.5	827	38.4	847	42.3	867	46.4	888	50.6	908	55.0	929	59.6	949	64.2
63000	3723	879	43.9	888	45.9	897	47.9	906	50.0	924	54.2	942	58.6	961	63.1	979	67.8	998	72.7	1016	77.7
69000	4078	961	57.2	969	59.4	978	61.6	986	63.9	1002	68.4	1019	73.1	1035	78.0	1052	82.9	1069	88.1	1086	93.4
75000	4433	1043	73.1	1051	75.5	1058	77.9	1066	80.3	1081	85.2	1096	90.2	1111	95.3	1127	100.6	1142	106.0	1158	111.6
81000	4787	1125	91.7	1133	94.2	1140	96.8	1147	99.4	1161	104.6	1175	110.0	1189	115.5	1203	121.0	1217	126.7	1231	132.6
87000	5142	1208	113.1	1214	115.9	1221	118.7	1228	121.4	1241	127.0	1254	132.7	1267	138.5	1280	144.4	1293	150.5	1306	156.6
93000	5496	1290	137.8	1296	140.7	1303	143.7	1309	146.6	1321	152.6	1333	158.6	1345	164.8	1358	171.0	1370	177.4	1382	183.8
99000	5851	1373	165.8	1378	168.9	1384	172.1	1390	175.2	1402	181.5										

CFM	OV FPM	5" SP		6" SP		7" SP		8" SP		10" SP		12" SP		14" SP		16" SP		18" SP		20" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
23000	1359	703	22.6	765	27.9																
29000	1714	731	27.7	785	33.3	837	39.3	889	45.7	915	53.4	1002	67.5	1088	83.0	1168	99.4				
35000	2069	774	34.9	823	40.7	870	46.9	915	53.4	1002	67.5	1088	83.0	1168	99.4						
41000	2423	824	43.7	869	50.3	913	57.0	955	63.9	1034	78.4	1110	94.0	1184	111.0	1257	129.1	1327	148.0	1393	167.4
47000	2778	882	53.7	922	61.4	962	69.1	1001	76.7	1076	92.2	1147	108.4	1214	125.6	1280	143.8	1345	163.2		
53000	3132	944	65.1	981	73.9	1017	82.6	1053	91.3	1123	108.5	1190	125.8	1254	143.7	1315	162.4	1375	182.0		
59000	3487	1009	78.1	1044	87.9	1078	97.6	1111	107.4	1175	126.8	1237	145.9	1299	165.1	1358	184.7				
65000	3842	1075	93.1	1109	103.7	1142	114.5	1173	125.2	1232	146.7	1290	168.1	1347	189.2	1403	210.3				
71000	4196	1143	110.2	1175	121.7	1207	133.3	1237	145.0	1294	168.5	1348	192.0	1401	215.3						
77000	4551	1213	130.0	1243	142.1	1273	154.5	1302	167.1	1357	192.5										
83000	4905	1284	152.5	1312	165.2	1341	178.3	1369	191.7												
89000	5260	1357	178.1	1384	191.4																

CHICAGO BLOWER SINGLE WIDTH AIRFOIL

SIZE
542 RA

52-7/8 In. Wheel Diameter
16.92 Sq. Ft. Outlet Area
Peak BHP = 73.455 (RPM ÷ 1000)³
Tip Speed (fpm) = 13.84 x RPM

CLASS I 858 RPM

CLASS II 1120 RPM

CLASS III 1404 RPM

CFM	OV FPM	1/4" SP		1/2" SP		3/4" SP		1" SP		1-1/2" SP		2" SP		2-1/2" SP		3" SP		3-1/2" SP		4" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
15000	887	248	1.1	288	1.8	325	2.5	359	3.3	422	5.2	479	7.5								
21000	1241	316	2.1	348	3.0	378	3.9	406	4.9	457	7.0	506	9.3	552	11.9	596	14.8	637	17.8		
27000	1596	389	3.6	416	4.8	441	6.0	464	7.2	509	9.7	550	12.2	590	15.0	628	17.9	664	21.1	700	24.4
33000	1950	463	5.9	486	7.4	508	8.8	529	10.3	568	13.2	605	16.2	640	19.3	673	22.4	706	25.8	737	29.3
39000	2305	539	9.2	560	10.8	579	12.5	597	14.2	632	17.7	665	21.1	697	24.6	727	28.2	756	31.8	785	35.6
45000	2660	616	13.5	634	15.3	651	17.3	668	19.2	699	23.1	729	27.2	758	31.2	786	35.2	813	39.3	839	43.4
51000	3014	694	19.0	710	21.1	725	23.3	740	25.4	769	29.9	797	34.4	823	38.9	849	43.5	874	48.0	898	52.6
57000	3369	772	25.9	786	28.3	800	30.7	814	33.1	841	38.0	866	42.9	890	48.0	914	53.1	937	58.1	960	63.2
63000	3723	850	34.4	863	37.0	876	39.6	889	42.3	913	47.7	937	53.1	960	58.6	982	64.2	1003	69.8	1025	75.4
69000	4078	928	44.6	941	47.5	953	50.4	964	53.2	987	59.1	1009	65.0	1030	71.0	1051	77.0	1071	83.1	1091	89.2
75000	4433	1007	56.8	1018	59.9	1029	63.0	1040	66.1	1062	72.4	1082	78.8	1102	85.3	1122	91.8	1141	98.3	1160	104.9
81000	4787	1086	71.0	1096	74.3	1107	77.6	1117	81.0	1137	87.8	1156	94.7	1175	101.6	1193	108.6	1211	115.6	1229	122.7
87000	5142	1165	87.4	1175	90.9	1184	94.5	1194	98.1	1212	105.4	1231	112.8	1249	120.1	1266	127.6	1283	135.1	1300	142.7
93000	5496	1244	106.2	1253	110.0	1262	113.8	1271	117.7	1289	125.4	1306	133.2	1323	141.1	1339	149.0	1356	157.0	1372	165.1
99000	5851	1323	127.6	1332	131.6	1340	135.7	1349	139.8	1365	148.0	1382	156.3	1398	164.6						
105000	6206	1402	151.6																		

CFM	OV FPM	5" SP		6" SP		7" SP		8" SP		10" SP		12" SP		14" SP		16" SP		18" SP		20" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
29000	1714	777	33.1	840	41.2	899	49.8														
35000	2069	811	38.8	868	46.9	923	55.7	976	65.1	1076	85.4										
41000	2423	856	46.1	907	54.6	957	63.6	1006	73.1	1099	93.7	1187	116.4	1271	140.8						
47000	2778	908	55.0	955	64.1	1001	73.5	1045	83.4	1131	104.4	1214	127.3	1293	152.0	1370	178.5				
53000	3132	964	65.5	1008	75.3	1051	85.4	1092	95.7	1172	117.6	1249	141.0	1323	166.0	1395	192.6				
59000	3487	1024	77.7	1065	88.3	1105	99.1	1144	110.1	1219	133.1	1291	157.3	1360	182.9						
65000	3842	1087	91.4	1126	103.1	1163	114.8	1200	126.6	1270	150.9	1338	176.2	1404	202.6						
71000	4196	1152	106.9	1188	119.6	1224	132.3	1259	145.0	1326	170.9	1390	197.6								
77000	4551	1218	124.3	1253	138.0	1287	151.8	1320	165.5	1384	193.2										
83000	4905	1287	143.7	1320	158.5	1352	173.3	1383	188.1												
89000	5260	1356	165.4	1387	181.2																

Performance shown is for installation type B - Free inlet, Ducted outlet.
Performance ratings do not include the effects of appurtenances in the air stream.

Power ratings (BHP) do not include drive losses.

CHICAGO BLOWER SINGLE WIDTH AIRFOIL

SIZE
600

58-1/2 In. Wheel Diameter
20.70 Sq. Ft. Outlet Area
Peak BHP = 130.07 (RPM ÷ 1000)³
Tip Speed (fpm) = 15.32 x RPM

CLASS I 775 RPM
CLASS II 1011 RPM
CLASS III 1268 RPM

CFM	OV FPM	1/4" SP		1/2" SP		3/4" SP		1" SP		1-1/2" SP		2" SP		2-1/2" SP		3" SP		3-1/2" SP		4" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
14000	676	187	0.8	224	1.4	257	2.0	288	2.7	345	4.3	412	8.0	452	10.2	491	12.5	527	15.0		
21000	1014	244	1.8	274	2.6	299	3.5	324	4.3	370	6.1	448	11.3	482	13.6	514	16.1	545	18.7	576	21.5
28000	1353	308	3.4	331	4.4	353	5.6	374	6.7	411	9.0	448	11.3	482	13.6	514	16.1	545	18.7	576	21.5
35000	1691	375	5.9	393	7.1	411	8.5	430	9.9	463	12.8	494	15.7	523	18.5	553	21.4	581	24.2	608	27.2
42000	2029	443	9.6	458	11.0	473	12.5	489	14.1	519	17.5	547	21.0	573	24.4	599	27.9	623	31.3	648	34.7
49000	2367	512	14.7	525	16.3	538	18.0	551	19.8	578	23.5	604	27.4	628	31.5	651	35.5	673	39.6	695	43.6
56000	2705	582	21.4	593	23.2	605	25.1	616	27.0	639	31.1	662	35.4	685	39.9	707	44.5	728	49.2	747	53.8
63000	3043	652	30.0	662	32.0	672	34.1	682	36.2	702	40.6	723	45.2	744	50.1	764	55.2	784	60.3	803	65.5
70000	3382	723	40.6	732	42.8	741	45.1	750	47.4	768	52.2	786	57.2	804	62.4	823	67.8	841	73.4	860	79.1
77000	3720	793	53.5	802	56.0	810	58.4	818	61.0	834	66.1	851	71.5	867	77.0	884	82.8	901	88.7	918	94.8
84000	4058	864	69.0	872	71.6	879	74.3	886	77.1	901	82.6	916	88.3	931	94.2	947	100.3	962	106.6	978	113.0
91000	4396	935	87.2	942	90.1	949	93.0	956	95.9	969	101.9	983	108.0	997	114.2	1011	120.6	1025	127.2	1039	134.0
98000	4734	1006	108.4	1012	111.5	1019	114.6	1025	117.8	1038	124.1	1051	130.6	1063	137.3	1076	144.0	1089	151.0	1102	158.0
105000	5072	1077	132.9	1083	136.2	1089	139.5	1095	142.9	1107	149.6	1119	156.5	1131	163.6	1143	170.7	1155	178.0	1167	185.4
112000	5411	1148	160.8	1153	164.3	1159	167.8	1165	171.4	1176	178.6	1187	185.9	1198	193.3	1209	200.8	1221	208.5	1232	216.3
119000	5749	1219	192.4	1224	196.1	1229	199.9	1235	203.6	1245	211.3	1256	219.0	1266	226.8						

CFM	OV FPM	5" SP		6" SP		7" SP		8" SP		10" SP		12" SP		14" SP		16" SP		18" SP		20" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
32000	1546	646	30.6	699	37.4	749	44.6	797	52.1												
39000	1884	679	37.8	724	44.7	769	52.1	812	60.0	897	77.2	976	95.4								
46000	2222	718	47.1	761	54.7	802	62.4	841	70.5	916	87.9	990	107.0	1061	127.6	1129	149.0				
53000	2560	764	58.0	803	66.6	841	75.2	878	83.9	948	102.0	1015	121.4	1079	142.1	1143	164.5	1205	188.1	1265	212.5
60000	2899	816	70.2	851	80.1	885	90.0	920	99.7	986	119.2	1049	139.4	1109	160.7	1167	183.2	1223	206.9		
67000	3237	870	84.1	903	95.2	935	106.3	966	117.3	1028	139.1	1087	160.8	1145	183.1	1199	206.3	1252	230.4		
74000	3575	926	99.8	958	112.1	988	124.3	1017	136.6	1074	160.9	1130	185.0	1184	209.0	1237	233.3				
81000	3913	984	117.8	1014	131.1	1043	144.4	1071	157.8	1124	184.7	1176	211.3	1227	237.7						
88000	4251	1042	138.3	1071	152.5	1100	166.9	1127	181.4	1178	210.5	1226	239.7								
95000	4589	1102	161.7	1130	176.7	1157	192.0	1183	207.5	1233	238.8										
102000	4928	1164	188.3	1190	203.9	1215	220.0	1240	236.4												
109000	5266	1227	218.3	1251	234.6																

CHICAGO BLOWER SINGLE WIDTH AIRFOIL

SIZE
600 RA

58-1/2 In. Wheel Diameter
20.70 Sq. Ft. Outlet Area
Peak BHP = 121.77 (RPM ÷ 1000)³
Tip Speed (fpm) = 15.32 x RPM

CLASS I 775 RPM
CLASS II 1011 RPM
CLASS III 1268 RPM

CFM	OV FPM	1/4" SP		1/2" SP		3/4" SP		1" SP		1-1/2" SP		2" SP		2-1/2" SP		3" SP		3-1/2" SP		4" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
14000	676	191	0.9	234	1.6	273	2.4	309	3.4												
21000	1014	246	1.7	279	2.6	309	3.6	338	4.7	390	7.1	440	9.8	485	12.9						
28000	1353	306	3.0	333	4.3	359	5.5	383	6.8	427	9.5	468	12.4	508	15.6	546	19.1	582	22.9	617	26.9
35000	1691	369	5.1	392	6.6	414	8.2	435	9.7	474	12.9	510	16.2	544	19.6	577	23.3	609	27.2	641	31.3
42000	2029	434	8.0	454	9.8	473	11.7	491	13.5	526	17.3	558	21.0	589	24.9	619	28.9	647	33.0	675	37.4
49000	2367	499	12.0	517	14.1	534	16.2	551	18.3	582	22.7	611	27.1	639	31.4	666	35.9	692	40.4	718	45.1
56000	2705	566	17.2	582	19.6	597	22.0	612	24.4	640	29.3	667	34.3	692	39.3	717	44.3	742	49.3	765	54.4
63000	3043	633	23.8	647	26.5	661	29.1	674	31.8	700	37.3	725	42.8	749	48.4	772	54.1	794	59.7	816	65.3
70000	3382	700	32.0	713	34.9	726	37.9	738	40.8	762	46.8	785	52.9	807	59.1	828	65.3	849	71.6	869	77.8
77000	3720	767	41.9	779	45.1	791	48.3	802	51.6	824	58.2	846	64.8	866	71.5	886	78.3	906	85.2	925	92.1
84000	4058	835	53.8	846	57.3	857	60.8	867	64.3	888	71.4	908	78.6	927	85.9	946	93.2	964	100.7	982	108.1
91000	4396	903	67.8	913	71.5	923	75.3	933	79.1	952	86.7	971	94.5	989	102.3	1007	110.2	1024	118.2	1041	126.3
98000	4734	970	84.0	980	88.0	989	92.1	999	96.1	1017	104.4	1034	112.7	1052	121.1	1069	129.5	1085	138.1	1101	146.6
105000	5072	1038	102.7	1047	107.0	1056	111.3	1065	115.7	1082	124.4	1099	133.3	1115	142.2	1131	151.3	1147	160.3	1162	169.5
112000	5411	1107	124.0	1115	128.6	1123	133.2	1131	137.8	1148	147.1	1163	156.6	1179	166.1	1194	175.6	1209	185.2	1224	194.9
119000	5749	1175	148.1	1183	152.9	1190	157.8	1198	162.8	1213	172.7	1228	182.6	1243	192.7	1258	202.8				

CFM	OV FPM	5" SP		6" SP		7" SP		8" SP		10" SP		12" SP		14" SP		16" SP		18" SP		20" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
32000	1546	692	38.1	750	47.7																
39000	1884	716	43.6	770	53.4	822	64.1	871	75.5												
46000	2222	750	51.0	799	61.2	846	72.0	892	83.5	980	108.7	1063	136.0								
53000	2560	791	60.3	836	71.0	879	82.2	922	94.0	1003	119.4	1082	147.2	1156	177.3	1227	209.2				
60000	2899	837	71.4	879	82.8	919	94.6	958	106.9	1034	132.9	1107	161.1	1177	191.4	1245	223.9				
67000	3237	887	84.3	926	96.6	964	109.1	1000	122.0	1071	149.1	1139	178.0	1205	208.8						
74000	3575	939	99.0	976	112.3	1012	125.8	1046	139.5	1113	167.9	1176	197.9	1238	229.4						
81000	3913	994	115.5	1028	129.9	1062	144.5	1095	159.2	1158	189.2	1218	220.5								
88000	4251	1050	133.9	1083	149.6	1115	165.3	1146	181.1	1206	213.1	1264	246.0								
95000	4589	1107	154.5	1139	171.4	1169	188.4	1199	205.3	1256	239.5										
102000	4928	1166	177.3	1196	195.5	1225	213.7	1253	231.9												
109000	5266	1226	202.8	1255	222.0																

Performance shown is for installation type B - Free inlet, Ducted outlet.

Performance ratings do not include the effects of appurtenances in the air stream.

Power ratings (BHP) do not include drive losses.

CHICAGO BLOWER SINGLE WIDTH AIRFOIL

SIZE
660

64-3/4 In. Wheel Diameter
25.05 Sq. Ft. Outlet Area
Peak BHP = 216.08 (RPM ÷ 1000)³
Tip Speed (fpm) = 16.95 x RPM

CLASS I 695 RPM

CLASS II 906 RPM

CLASS III 1136 RPM

CFM	OV FPM	1/4" SP		1/2" SP		3/4" SP		1" SP		1-1/2" SP		2" SP		2-1/2" SP		3" SP		3-1/2" SP		4" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
15000	599	157	0.8	194	1.5	226	2.2	256	3.0	328	6.9	367	9.2	406	11.9	441	14.7				
24000	958	210	1.9	237	2.9	262	3.9	285	4.8	365	10.5	399	13.1	431	15.9	460	18.9	489	22.1	517	25.5
33000	1317	269	3.8	291	5.0	312	6.4	330	7.8	414	15.2	442	18.6	469	22.1	496	25.5	521	28.9	546	32.5
42000	1677	333	6.9	349	8.4	367	10.0	383	11.7												
51000	2036	398	11.6	411	13.3	425	15.1	439	17.0	467	21.1	492	25.3	516	29.6	539	33.8	561	37.9	583	42.1
60000	2395	463	18.1	475	20.0	486	22.1	498	24.3	522	28.8	546	33.7	568	38.6	589	43.6	608	48.5	628	53.5
69000	2754	529	26.8	540	29.0	550	31.3	560	33.7	580	38.7	601	44.0	622	49.6	641	55.2	660	60.9	678	66.6
78000	3114	596	38.0	605	40.5	614	43.1	623	45.7	641	51.1	659	56.9	678	62.9	696	69.2	714	75.5	731	81.9
87000	3473	663	52.1	671	54.8	679	57.6	687	60.5	703	66.5	719	72.6	735	79.1	752	85.8	769	92.7	785	99.7
96000	3832	730	69.3	737	72.3	744	75.4	752	78.5	766	85.0	781	91.6	795	98.5	810	105.6	825	113.0	840	120.5
105000	4192	797	90.0	804	93.3	810	96.7	817	100.1	830	107.0	843	114.1	857	121.5	870	129.0	884	136.8	897	144.8
114000	4551	864	114.5	870	118.1	876	121.8	882	125.4	895	132.9	907	140.5	919	148.3	931	156.3	944	164.5	956	172.9
123000	4910	931	143.2	937	147.1	943	151.0	948	154.9	960	162.9	971	171.1	982	179.4	994	187.8	1005	196.5	1017	205.3
132000	5269	999	176.4	1004	180.5	1009	184.7	1015	188.9	1025	197.5	1036	206.1	1046	214.9	1057	223.9	1067	233.0	1078	242.2
141000	5629	1066	214.3	1071	218.7	1076	223.3	1081	227.7	1091	236.8	1101	246.0	1111	255.3	1120	264.7	1130	274.3		
150000	5988	1134	257.4																		

CFM	OV FPM	5" SP		6" SP		7" SP		8" SP		10" SP		12" SP		14" SP		16" SP		18" SP		20" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
35000	1397	575	34.3	625	42.3																
44000	1756	599	42.1	643	50.5	685	59.5	727	69.1	805	89.5										
53000	2116	635	53.1	674	61.9	712	71.2	749	81.0	820	102.2	889	125.5	954	150.1						
62000	2475	676	66.4	712	76.5	748	86.6	782	96.9	846	118.7	908	142.2	968	167.7	1028	194.9	1085	223.4		
71000	2834	723	81.6	756	93.3	788	104.9	820	116.4	881	139.7	939	164.1	993	189.9	1047	217.3	1100	246.4		
80000	3194	775	98.9	805	112.1	834	125.4	863	138.5	919	164.4	974	190.5	1026	217.4	1076	245.6	1125	275.0		
89000	3553	828	118.7	856	133.4	884	148.1	910	162.9	962	192.1	1013	221.0	1063	249.9	1111	279.4				
98000	3912	882	141.4	910	157.4	936	173.6	961	189.8	1010	222.3	1057	254.5	1103	286.3						
107000	4271	937	167.4	964	184.7	989	202.2	1014	219.9	1060	255.3	1104	290.7								
116000	4631	994	197.4	1019	215.6	1044	234.3	1067	253.3	1112	291.6										
125000	4990	1053	231.6	1076	250.7	1099	270.5	1122	290.6												
134000	5349	1113	270.4	1134	290.4																

CHICAGO BLOWER SINGLE WIDTH AIRFOIL

SIZE
660 RA

64-3/4 In. Wheel Diameter
25.05 Sq. Ft. Outlet Area
Peak BHP = 202.29 (RPM ÷ 1000)³
Tip Speed (fpm) = 16.95 x RPM

CLASS I 695 RPM

CLASS II 906 RPM

CLASS III 1136 RPM

CFM	OV FPM	1/4" SP		1/2" SP		3/4" SP		1" SP		1-1/2" SP		2" SP		2-1/2" SP		3" SP		3-1/2" SP		4" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
15000	599	162	0.9	204	1.7	242	2.7			348	8.2	394	11.6								
24000	958	212	1.8	243	2.9	272	4.1	298	5.3	380	11.1	418	14.6	455	18.5	490	22.8	523	27.4	555	32.3
33000	1317	268	3.4	294	4.9	317	6.4	339	7.9	424	15.3	457	19.3	488	23.5	518	27.9	548	32.7	576	37.7
42000	1677	328	6.0	349	7.8	369	9.7	388	11.5												
51000	2036	389	9.7	408	11.9	425	14.1	441	16.3	473	20.9	502	25.5	530	30.2	557	35.0	583	40.1	608	45.4
60000	2395	452	14.8	468	17.3	483	19.9	498	22.5	526	27.8	552	33.2	578	38.6	602	44.0	626	49.6	649	55.3
69000	2754	515	21.6	529	24.5	543	27.4	556	30.4	581	36.4	605	42.6	628	48.7	651	54.9	673	61.1	694	67.4
78000	3114	578	30.3	591	33.5	603	36.8	615	40.1	639	46.9	661	53.8	682	60.7	703	67.7	723	74.6	742	81.6
87000	3473	642	41.1	654	44.7	665	48.4	676	52.1	697	59.5	718	67.1	737	74.8	756	82.5	775	90.3	793	98.1
96000	3832	706	54.4	717	58.3	727	62.4	737	66.4	757	74.6	776	82.9	794	91.2	812	99.7	829	108.2	847	116.8
105000	4192	770	70.3	780	74.6	790	79.0	799	83.4	817	92.3	835	101.3	852	110.4	869	119.6	885	128.8	901	138.1
114000	4551	835	89.1	844	93.8	853	98.6	861	103.3	878	112.9	895	122.6	911	132.4	927	142.3	942	152.3	957	162.3
123000	4910	899	111.1	907	116.2	916	121.3	924	126.4	940	136.7	956	147.1	971	157.6	986	168.2	1000	178.9	1015	189.7
132000	5269	964	136.5	972	141.9	979	147.4	987	152.9	1002	163.9	1017	175.0	1031	186.3	1045	197.6	1059	209.0	1073	220.4
141000	5629	1028	165.6	1036	171.4	1043	177.2	1050	183.0	1064	194.8	1078	206.6	1092	218.6	1105	230.6	1119	242.7	1131	254.8
150000	5988	1093	198.5	1100	204.7	1107	210.9	1114	217.1	1127	229.5										

CFM	OV FPM	5" SP		6" SP		7" SP		8" SP		10" SP		12" SP		14" SP		16" SP		18" SP		20" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
44000	1756	636	50.2	687	62.2	735	75.2														
53000	2116	665	58.8	711	71.0	755	84.2	798	98.3	880	128.8										
62000	2475	702	69.9	743	82.7	784	96.2	823	110.5	899	141.5	971	175.6	1039	212.2						
71000	2834	744	83.5	783	97.1	820	111.4	856	126.2	926	157.8	993	192.2	1058	229.3	1120	269.0				
80000	3194	791	99.5	826	114.2	861	129.4	895	145.0	959	177.8	1022	213.0	1083	250.5						
89000	3553	840	117.9	873	134.0	906	150.2	937	166.8	998	201.4	1057	237.8	1113	276.2						
98000	3912	891	138.8	923	156.3	953	174.0	983	191.8	1041	228.4	1096	266.4								
107000	4271	944	162.3	974	181.4	1003	200.6	1031	219.8	1086	258.7										
116000	4631	999	188.7	1027	209.4	1055	230.1	1082	250.8	1134	292.6										
125000	4990	1055	218.2	1082	240.4	1108	262.8	1133	285.1												
134000	5349	1112	251.2																		

Performance shown is for installation type B - Free inlet, Ducted outlet.
Performance ratings do not include the effects of appurtenances in the air stream.

Power ratings (BHP) do not include drive losses.

CHICAGO BLOWER SINGLE WIDTH AIRFOIL

SIZE
730

71-3/16 In. Wheel Diameter
30.640 Sq. Ft. Outlet Area
Peak BHP = 347.09 (RPM ÷ 1000)³
Tip Speed (fpm) = 18.64 x RPM

- CLASS I 637 RPM**
- CLASS II 831 RPM**
- CLASS III 1042 RPM**

CFM	OV FPM	1/4" SP		1/2" SP		3/4" SP		1" SP		1-1/2" SP		2" SP		2-1/2" SP		3" SP		3-1/2" SP		4" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
18000	587	142	1.0	176	1.7	205	2.6	233	3.6	298	8.3	334	11.1	369	14.3	401	17.7				
29000	946	191	2.3	216	3.5	238	4.7	259	5.8	301	9.4	333	12.7	363	15.9	392	19.3	445	26.8	471	30.9
40000	1305	245	4.6	265	6.1	284	7.7	301	9.4	333	12.7	363	15.9	392	19.3	419	22.9	445	26.8	471	30.9
51000	1664	304	8.4	319	10.2	334	12.2	349	14.2	377	18.4	402	22.6	427	26.8	451	30.9	475	35.1	497	39.5
62000	2023	363	14.1	376	16.2	388	18.4	401	20.8	426	25.8	449	30.9	470	36.0	491	41.1	511	46.2	532	51.2
73000	2383	424	22.2	434	24.6	445	27.1	455	29.7	477	35.2	498	41.1	518	47.1	537	53.1	555	59.2	573	65.2
84000	2742	484	32.9	494	35.6	503	38.4	512	41.3	530	47.4	549	53.8	568	60.6	586	67.5	603	74.4	619	81.3
95000	3101	546	46.8	554	49.8	562	52.9	570	56.1	586	62.7	602	69.7	619	77.0	636	84.6	652	92.3	667	100.1
106000	3460	607	64.1	614	67.5	621	71.0	629	74.4	643	81.6	658	89.1	673	97.0	688	105.1	702	113.5	717	122.1
117000	3819	669	85.4	675	89.2	682	92.9	688	96.7	701	104.5	714	112.6	728	121.0	741	129.6	755	138.5	768	147.7
128000	4178	730	111.1	736	115.1	742	119.2	748	123.4	760	131.8	772	140.5	784	149.4	796	158.5	808	167.9	821	177.7
139000	4537	792	141.5	798	145.9	803	150.3	809	154.8	820	163.8	831	173.1	842	182.6	853	192.3	864	202.2	875	212.4
150000	4896	854	177.0	859	181.8	864	186.5	869	191.3	879	201.0	890	210.9	900	221.0	910	231.3	920	241.8	931	252.5
161000	5255	916	218.1	921	223.1	925	228.3	930	233.4	940	243.8	949	254.3	959	265.0	968	275.9	978	287.0	987	298.2
172000	5614	978	265.2	982	270.5	987	276.0	991	281.5	1000	292.5	1009	303.7	1018	315.0	1027	326.5	1036	338.2		
183000	5973	1040	318.6																		

CFM	OV FPM	5" SP		6" SP		7" SP		8" SP		10" SP		12" SP		14" SP		16" SP		18" SP		20" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
48000	1567	532	45.9	575	55.9	616	66.6	656	77.8												
59000	1926	561	57.5	599	67.8	635	78.8	670	90.5	739	116.0	803	143.4								
70000	2285	597	72.6	631	84.0	665	95.6	697	107.7	757	133.6	816	161.9	874	192.5	929	224.7	981	257.8		
81000	2644	638	90.1	669	103.3	700	116.4	730	129.6	787	156.8	840	185.7	892	216.6	943	249.6	993	284.8	1042	321.5
92000	3003	684	109.9	712	125.2	740	140.3	767	155.3	820	185.1	871	215.6	920	247.5	966	281.0	1012	316.3		
103000	3362	732	132.7	759	149.7	784	166.8	809	183.8	858	217.5	906	250.8	952	284.6	997	319.4	1039	355.6		
114000	3721	781	158.8	807	177.5	831	196.4	855	215.3	900	253.0	944	290.2	988	327.1	1030	364.3				
125000	4080	832	188.8	856	209.1	880	229.7	902	250.3	945	291.7	986	333.0	1027							
136000	4439	884	223.3	907	244.9	929	267.0	951	289.4	992	334.3	1031	379.3								
147000	4798	937	262.9	958	285.7	980	309.1	1001	332.9	1041	381.2										
158000	5157	991	308.0	1011	331.9	1031	356.4														

CHICAGO BLOWER SINGLE WIDTH AIRFOIL

SIZE
730 RA

71-3/16 In. Wheel Diameter
30.640 Sq. Ft. Outlet Area
Peak BHP = 324.94 (RPM ÷ 1000)³
Tip Speed (fpm) = 18.64 x RPM

- CLASS I 637 RPM**
- CLASS II 831 RPM**
- CLASS III 1042 RPM**

CFM	OV FPM	1/4" SP		1/2" SP		3/4" SP		1" SP		1-1/2" SP		2" SP		2-1/2" SP		3" SP		3-1/2" SP		4" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
18000	587	147	1.0	185	2.0	220	3.2	271	6.4	317	9.9	358	14.0								
29000	946	192	2.2	221	3.5	247	4.9	309	9.6	346	13.4	381	17.7	414	22.4	446	27.6	476	33.2	505	39.1
40000	1305	244	4.2	267	5.9	289	7.7	309	9.6	346	13.4	381	17.7	414	22.4	446	27.6	476	33.2	505	39.1
51000	1664	299	7.3	318	9.5	337	11.7	354	14.0	386	18.6	416	23.4	444	28.5	472	33.9	499	39.6	525	45.7
62000	2023	355	11.8	372	14.4	388	17.2	403	19.9	431	25.4	458	31.0	483	36.7	508	42.6	531	48.7	554	55.1
73000	2383	413	18.1	427	21.2	441	24.3	455	27.5	480	34.0	504	40.5	527	47.0	549	53.6	571	60.4	591	67.3
84000	2742	471	26.4	484	29.9	496	33.5	508	37.1	531	44.5	553	52.0	574	59.5	594	67.0	614	74.5	633	82.1
95000	3101	529	37.1	541	41.1	552	45.1	563	49.1	584	57.4	604	65.7	623	74.2	642	82.6	660	91.1	678	99.6
106000	3460	588	50.5	598	54.9	608	59.3	618	63.8	638	72.9	656	82.1	674	91.5	691	100.9	708	110.4	725	119.8
117000	3819	646	66.9	656	71.7	665	76.6	675	81.5	692	91.5	710	101.5	726	111.8	742	122.1	758	132.5	774	142.9
128000	4178	705	86.5	714	91.8	723	97.1	731	102.5	748	113.3	764	124.3	780	135.3	795	146.5	810	157.8	824	169.1
139000	4537	765	109.8	773	115.5	781	121.3	789	127.1	804	138.7	819	150.6	834	162.5	848	174.6	862	186.7	876	198.9
150000	4896	824	137.0	831	143.1	839	149.3	846	155.5	861	168.1	875	180.8	889	193.6	902	206.5	915	219.5	928	232.6
161000	5255	883	168.3	890	174.9	897	181.6	904	188.3	918	201.7	931	215.3	944	228.9	957	242.7	969	256.6	982	270.5
172000	5614	943	204.3	949	211.3	956	218.4	962	225.5	975	239.8	988	254.3	1000	268.8	1012	283.4	1024	298.2	1036	313.0
183000	5973	1002	245.0	1008	252.5	1014	260.0	1021	267.6	1033	282.8										

CFM	OV FPM	5" SP		6" SP		7" SP		8" SP		10" SP		12" SP		14" SP		16" SP		18" SP		20" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
48000	1567	569	56.8	617	71.1																
59000	1926	591	65.7	635	80.3	677	96.2	718	113.1												
70000	2285	622	77.9	661	93.0	700	109.1	737	126.2	809	163.5	876	204.3								
81000	2644	659	93.1	695	109.1	730	125.9	764	143.5	830	181.3	893	222.6	954	267.3	1012	314.9				
92000	3003	700	111.3	734	128.5	766	146.3	798	164.7	858	203.7	917	245.7	974	290.7	1029	338.9				
103000	3362	744	132.5	776	151.2	806	170.2	835	189.8	892	230.6	947	273.9	1000	319.8						
114000	3721	791	156.7	820	177.1	849	197.7	876	218.6	930	261.7	981	306.8	1031	354.1						
125000	4080	839	183.9	867	206.3	894	228.6	920	251.2	971	297.1	1019	344.5								
136000	4439	889	214.6	915	238.9	940	263.2	965	287.5	1013	336.6										
147000	4798	940	249.0	964	275.2	989	301.4	1012	327.6												
158000	5157	991	287.5	1015	315.4	1038	343.6														

Performance shown is for installation type B - Free inlet, Ducted outlet.

Performance ratings do not include the effects of appurtenances in the air stream.

Power ratings (BHP) do not include drive losses.

Sound Levels

Table lists estimated sound levels (dBA) for each fan size at various speeds within the fan's normal operating range. To determine dBA for a selected fan, locate the intersection of the fan size and the closest RPM.

NOTES:

1. Sound levels are based on tests conducted in accordance with AMCA Standard 300, Set-Up No. 1.
2. Sound level computations are based on a distance of 10' from the fan's open inlet in a free field environment.
3. Specific octave band sound power levels and sound pressure levels available on request.
4. Sound levels of installed fans can vary greatly from laboratory tests. The dBA ratings are only to be used as estimates. Any comparisons and detailed calculations should be based upon sound power levels, which are independent of the installation.
5. AMCA Certified Ratings Seal applies to air performance only.

SOUND LEVELS

FAN SIZE	FAN SPEED - RPM												
	700	800	900	1000	1200	1400	1600	1800	2000	2400	2800	3200	3600
135	29	32	35	38	42	46	50	53	56	60	64	68	71
150	32	35	38	41	46	50	53	56	59	64	68	71	74
165	35	38	41	44	49	53	56	59	62	67	71	74	77
182	38	42	45	47	52	56	59	62	65	70	74	77	81
200	41	44	47	50	55	59	62	65	68	73	77	80	83
222	44	48	51	53	58	62	66	69	71	76	80	84	-
245	42	45	48	51	56	60	64	67	70	75	79	-	-
270	45	48	51	54	59	63	67	70	73	78	-	-	-
300	48	52	55	58	63	67	70	74	76	81	-	-	-
330	52	55	59	61	67	71	75	78	81	-	-	-	-
365	55	59	62	65	70	74	78	81	84	-	-	-	-
402	59	63	67	70	75	79	83	87	-	-	-	-	-
445	63	66	70	73	78	82	86	-	-	-	-	-	-
490	66	69	73	76	81	85	-	-	-	-	-	-	-
542	69	73	76	79	84	89	-	-	-	-	-	-	-
600	72	76	79	82	87	-	-	-	-	-	-	-	-
660	75	79	82	85	-	-	-	-	-	-	-	-	-
730	78	82	85	88	-	-	-	-	-	-	-	-	-
807	81	85	88	-	-	-	-	-	-	-	-	-	-
890	84	88	-	-	-	-	-	-	-	-	-	-	-

Bearing Life

Bearing life may be substantially increased or decreased by variations in the operating speed. The table at right lists the design speeds (RPM) and fan sheave pitch diameters. The graph below the table plots the increase or decrease in bearing life when the RPM or fan sheave pitch diameter is changed from the values in the table. Minimum average bearing life is 75,000 hours.

EXAMPLE:

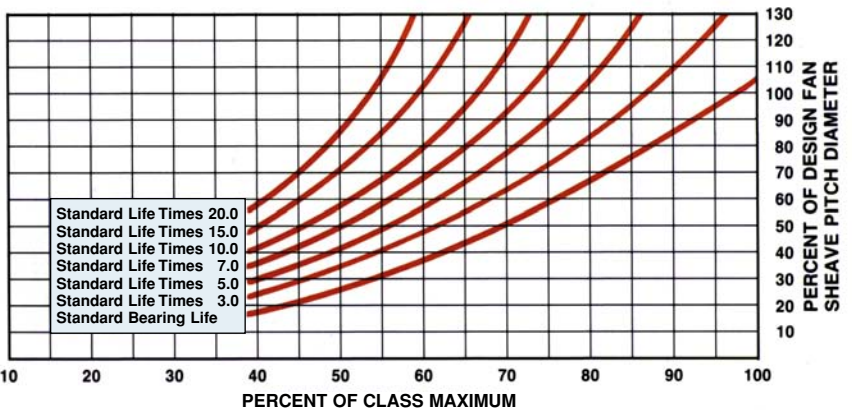
Determine the increased bearing life of a Size 402 Class I fan operating at 785 RPM. Assume the actual fan sheave pitch diameter of 18.7 inches.

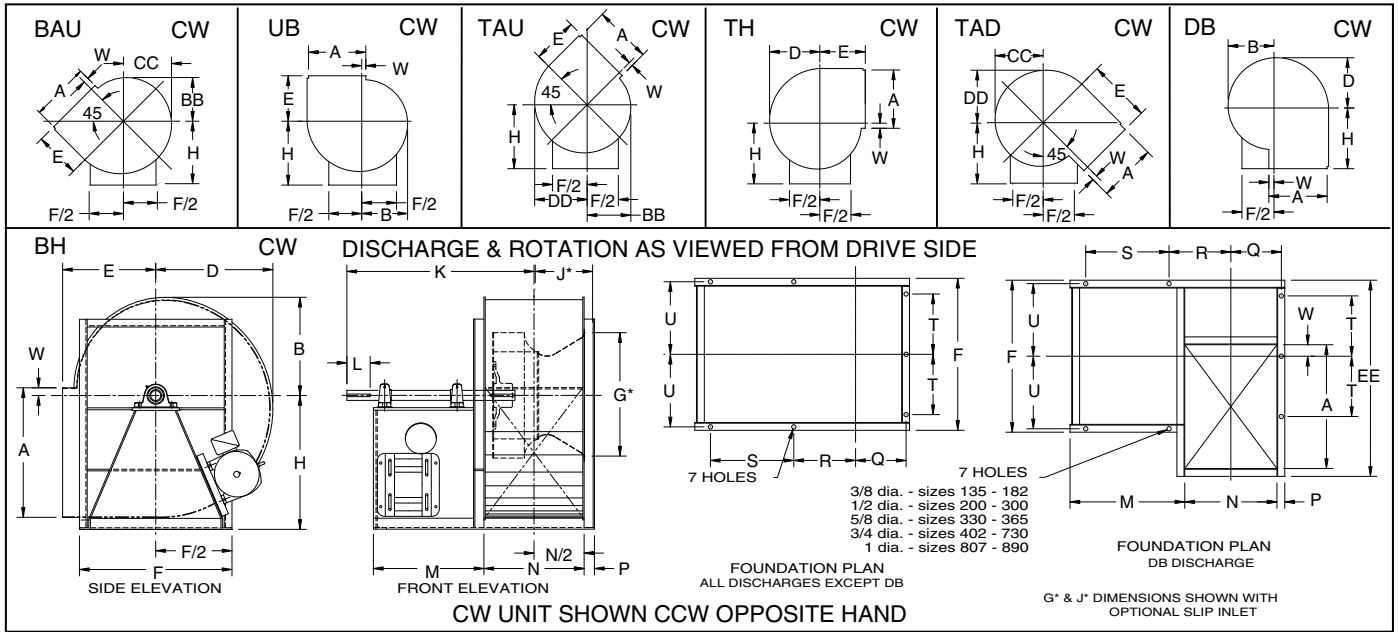
1. Calculate operating RPM as a percent of the design RPM.
 $785 \text{ RPM} \div 1141 \text{ RPM} = .688 \times 100 = 68.8\%$. (Use 69%)
2. Calculate actual fan sheave pitch diameter as a percent of the design fan sheave pitch diameter in the table.
 $18.7" \div 16.7" = 1.11 \times 100 = 111\%$
3. Locate the intersection of 69% of design RPM and 111% of design fan sheave pitch diameter in the graph. The increased bearing life is 10 times the design minimum bearing life or 750,000 hours minimum average life.

BEARING LIFE

FAN SIZE	CLASS I		CLASS II		CLASS III	
	RPM	FAN SHEAVE PITCH DIA.	RPM	FAN SHEAVE PITCH DIA.	RPM	FAN SHEAVE PITCH DIA.
135	3542	5.4	4607	4.1	5794	R/F
150	3246	5.9	4221	4.5	5309	R/F
165	2886	6.6	3753	5.1	4721	4
182	2653	7.2	3437	5.6	4323	4.4
200	2355	8.1	3063	6.2	3853	5
222	2205	8.7	2868	6.7	3607	5.3
245	1991	9.6	2590	7.4	3258	6
270	1809	10.6	2353	8.1	2959	6.5
300	1663	11.5	2163	8.8	2720	7
330	1433	13.3	1863	10.3	2344	8.1
365	1318	9.3	1715	11.1	2157	8.9
402	1141	16.7	1483	12.9	1866	10.2
445	1043	18.3	1360	14	1706	11.2
490	939	20.3	1224	15.6	1535	12.4
542	858	22.3	1120	17.1	1404	13.6
600	775	24.6	1011	18.9	1268	15.1
660	695	27.5	906	21.1	1136	16.8
730	637	30.0	831	23.0	1042	R/F
807	576	33.2	751	25.4	942	R/F
890	518	29.5	675	22.6	847	R/F

R/F: Refer to Factory.



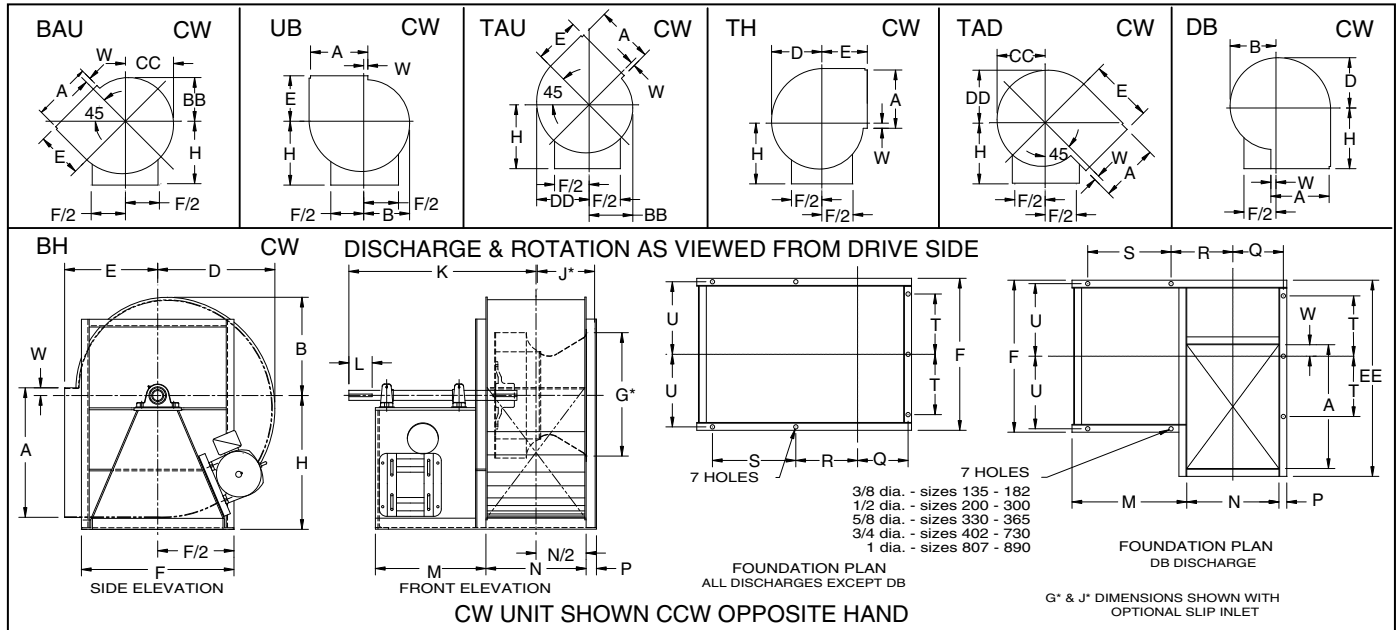


DIMENSIONS IN INCHES

FAN SIZE	WHEEL DIA.	SHAFT AT BEARINGS	KEYWAY	A	B	D	E		F	H								
							TH/BH BAU/TAU UB	TAD		BH	UB	TH	BAU	TAU	TAD	DB		
135	13-7/32	1-11/16	3/8 x 3/16	14-1/8	10-1/2	12-1/2	11-5/16	16	17-1/8					20-5/16				
150	14-9/16	1-11/16	3/8 x 3/16	15-13/16	11-1/2	13-3/4	12-1/16	17-7/8	19-1/8					20-1/16				
165	16-3/16	1-15/16	1/2 x 1/4	17-3/16	12-3/4	15-1/4	12-7/8	18-1/4	20-1/4					23-3/16				
182	17-13/16	1-15/16	1/2 x 1/4	19-1/8	14	16-3/4	13-7/8	20	22-1/4					22-15/16				
200	19-11/16	1-15/16	1/2 x 1/4	20-3/4	15-3/4	18-3/4	15-3/8	22	25-1/4					23-1/4				
222	21-9/16	1-15/16	1/2 x 1/4	23-7/16	17-3/16	20-7/16	16-5/16	24	27-1/8					25				
245	24	1-15/16	1/2 x 1/4	25-9/16	19	22-11/16	18	28-13/16	33	25-7/8	23-3/4	23-3/4	24-5/8	23-3/4	23-3/4	23-3/4	23-3/4	23-3/4
270	26-7/16	1-15/16	1/2 x 1/4	28-3/16	20-7/8	24-15/16	19-1/4	30-13/16	35-1/2	28-1/4	25-7/16	23	27	23-1/8	25-1/4	23	23	23
300	29-1/8	2-3/16	1/2 x 1/4	31-9/16	22-15/16	27-3/8	20-7/8	33-7/8	38-3/4	30-7/8	27-7/8	26	29-5/8	26	27-15/16	26	26	26
330	32-3/8	2-3/16	1/2 x 1/4	34-3/8	25-3/8	30-5/16	22-9/16	35-11/16	41-7/8	34-1/2	30-13/16	26	32-13/16	28	29	26	26	26
365	35-9/16	2-3/16	1/2 x 1/4	38-5/16	27-7/8	33-1/4	24-5/8	38-15/16	45-1/4	37-3/4	33-3/4	28-5/16	35-15/16	31-7/8	31-7/8	25-1/8	25-1/8	25-1/8
402	39-3/8	2-7/16	5/8 x 5/16	42	30-3/4	36-3/4	27-1/2	42-3/8	51-1/4	41-7/8	37-1/4	31-1/4	39-11/16	33-13/16	34-5/8	28	28	28
445	43-7/16	2-15/16	3/4 x 3/8	46-1/2	33-7/8	40-1/2	30-1/16	45-3/8	54-3/4	45-7/8	41	34-3/8	43-5/8	37-3/16	37-1/8	30-9/16	30-9/16	
490	48	2-11/16	5/8 x 5/16	51-1/16	37-3/8	44-11/16	32-15/16	48-13/16	59-1/2	50-5/16	45-3/16	37-13/16	48-1/8	41	39-5/8	33-7/16	33-7/16	
542	52-7/8	2-15/16	3/4 x 3/8	56-13/16	41-1/16	49-3/16	36	53-3/16	63-1/4	55-3/8	49-11/16	41-9/16	53-1/8	45-1/16	43-3/8	36-1/2	36-1/2	
600	58-1/2	3-3/16	3/4 x 3/8	62-13/16	45-3/8	54-5/16	39-9/16	57-13/16	69-1/8	60-7/8	54-13/16	45-7/8	58-3/8	49-3/4	47-1/16	40-1/16	40-1/16	
660	64-3/4	3-7/16	7/8 x 7/16	68-11/16	50-3/16	60-1/8	44-1/16	63-13/16	75-7/8	67	60-5/8	50-11/16	64-9/16	54-15/16	51-1/16	44-9/16	44-9/16	
730	71-3/16	3-7/16	7/8 x 7/16	76-3/8	55-1/8	66	48-1/8	69-1/16	82	73-5/16	66-1/2	55-5/8	70-7/8	60-5/16	56-1/8	48-5/8	48-5/8	
807	78-3/4	4-15/16	1-1/4 x 5/8	84-1/2	60-15/16	73	53-3/8	81-1/2	93-5/8	81-11/16	73-7/16	61-3/8	78-1/4	66-5/8	65-3/4	53-7/8	53-7/8	
890	87-1/8	RF	RF	RF	RF	RF	59-1/4	RF	RF	RF	RF	RF	RF	RF	RF	RF	RF	
FAN SIZE	G	J	K	L	M	N	P	Q	R	S	T	U	W	BB	CC	DD	EE	
135	13-7/16	6-15/16	28-7/32	3	18-7/8	10-11/16	1-1/2	6-7/32	8-27/32	11-7/8	5-1/16	7-15/16	1-1/8	9-1/2	11-3/8	13-5/16	23-1/16	
150	15-7/16	7-7/16	28-3/4	3	18-7/8	11-3/4	1-1/2	6-3/4	9-3/8	11-7/8	6-1/16	8-15/16	1-15/32	10-1/2	12-1/2	14-5/8	25-13/32	
165	16-9/16	8-1/8	34-25/32	3-1/2	23-3/4	13-1/16	1-1/2	7-13/32	10-1/32	16-3/4	6-5/8	9-1/2	1-9/32	11-9/16	13-13/16	16-3/16	27-17/32	
182	18-9/16	8-3/4	35-7/16	3-1/2	23-3/4	14-3/8	1-1/2	8-1/16	10-11/16	16-3/4	7-5/8	10-1/2	1-5/8	12-3/4	15-3/16	17-13/16	30-1/8	
200	20-9/16	9-1/2	36-11/16	3-1/2	24-1/4	15-7/8	2	9-1/16	11-15/16	16-1/4	8-5/8	11-3/4	1-3/8	14-5/16	17	19-7/8	34	
222	22-9/16	10-1/4	40-9/16	4-1/4	26-5/8	17-3/8	2	9-13/16	12-11/16	18-5/8	9-9/16	12-11/16	2-7/32	15-5/8	18-9/16	21-3/4	36-25/32	
245	24-9/16	11-1/4	41-9/16	4-1/4	26-5/8	19-3/8	2	10-13/16	13-11/16	18-5/8	12-1/2	15-5/8	1-31/32	17-5/16	20-5/8	24-1/8	42-3/32	
270	27-9/16	12-3/4	42-17/32	4-1/4	26-5/8	21-5/16	2	11-25/32	14-21/32	18-5/8	13-3/4	16-7/8	2-3/16	19	22-5/8	26-1/2	45-3/4	
300	30-9/16	13-13/16	46-3/4	4-3/4	29-1/4	23-1/2	2	12-7/8	15-3/4	21-1/4	15-3/8	18-1/2	2-15/16	20-7/8	24-7/8	29-1/8	50	
330	33-9/16	15-1/8	48-9/16	4-3/4	29-3/4	26-1/8	2-1/2	14-7/16	17-9/16	20-3/4	16-7/16	19-13/16	2-5/8	23-1/16	27-9/16	32-5/16	55-3/16	
365	36-9/16	16-7/16	49-7/8	4-3/4	29-3/4	28-3/4	2-1/2	15-1/4	18-7/8	20-3/4	18-1/8	21-1/2	3-7/16	25-5/16	30-3/16	35-7/16	60	
402	41-9/16	17-15/16	53-3/4	5-1/2	31-3/8	31-3/4	3	17-5/8	20-7/8	21-3/8	20-5/8	24-3/8	3-3/8	27-15/16	33-3/8	39-3/16	67-1/4	
445	44-9/16	19-9/16	55-3/8	5-1/4	31-3/8	35	3	19-1/4	22-1/2	21-3/8	22-3/8	26-1/8	3-7/8	30-3/4	36-3/4	43-1/8	73	
490	49-9/16	21-7/16	64-11/32	6-3/4	37-1/4	38-11/16	3	21-3/32	24-11/32	27-1/4	24-3/4	28-1/2	4	33-7/8	40-1/2	47-5/8	79-13/16	
542	53-5/8	24-1/16	72-3/16	8	41-3/4	42-7/8	3	23-3/16	26-7/16	31-3/4	26-5/8	30-3/8	4-31/32	37-1/4	44-9/16	52-3/8	86-15/32	
600	59-3/8	26-3/8	76-1/2	8	43-3/4	47-1/2	3	25-1/2	28-3/4	33-3/4	29-9/16	33-5/16	5-15/32	41-1/8	49-3/16	57-7/8	94-29/32	
660	65-7/8	29-3/8	79	7-3/4	43-3/4	52-1/2	3	28	31-1/4	33-3/4	32-15/16	36-11/16	5-3/16	45-1/2	54-7/16	64-1/16	104-7/16	
730	71-7/8	35	81-5/8	7-3/4	43-3/4	57-3/4	3	30-5/8	33-7/8	33-3/4	36	39-3/4	6-9/16	50	59-13/16	70-3/8	113-13/16	
807	79-1/2	38-7/16	85-11/16	7-3/4	44-3/4	63-7/8	4	34-7/16	37-15/16	32-3/4	40-13/16	45-5/16	7-5/16	55-1/4	66-1/8	77-3/4	128	
890	88-1/4	RF	RF	RF	RF	RF	RF	RF	RF	RF	RF	RF	RF	RF	RF	RF	RF	

DO NOT USE FOR CONSTRUCTION UNLESS CERTIFIED BY CHICAGO BLOWER CORPORATION. AUTOCAD DRAWINGS ARE AVAILABLE UPON REQUEST.

CLASS III - Arrangements 1 and 9

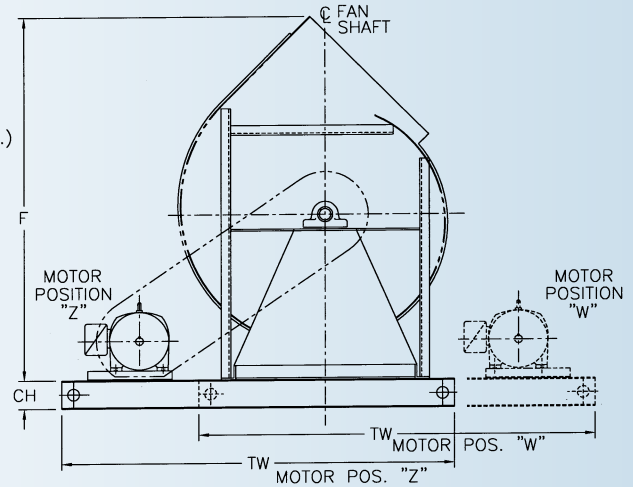
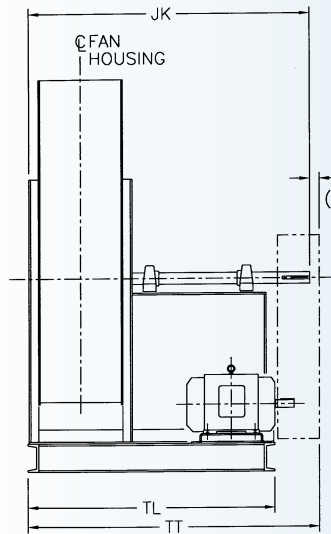
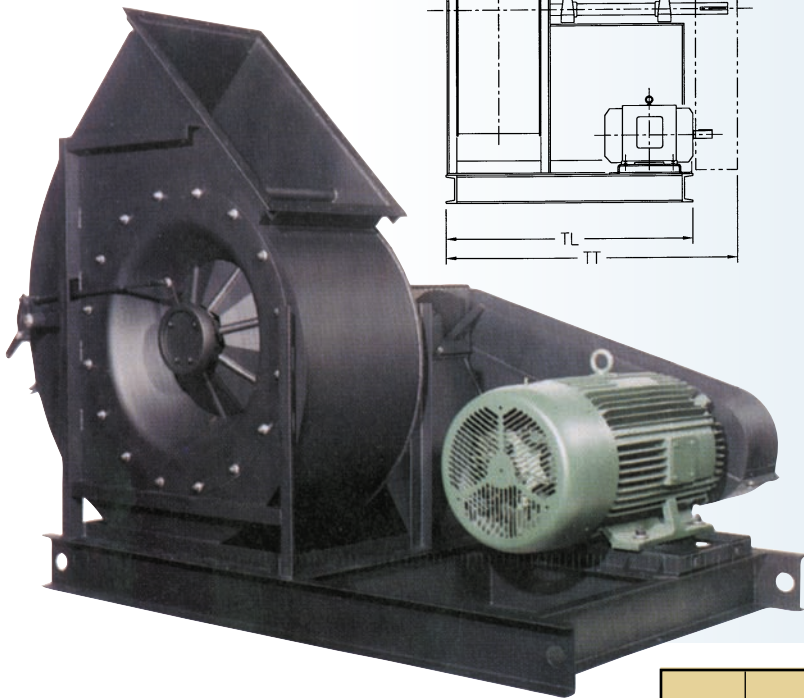


DIMENSIONS IN INCHES

FAN SIZE	WHEEL DIA.	SHAFT AT BEARINGS	KEYWAY	A	B	D	E		F	H							
							TH/BH BAU/TAU UB	TAD		BH	UB	TH	BAU	TAU	TAD	DB	
135	13-7/32	1-15/16	1/2 x 1/4	14-1/8	10-1/2	12-1/2	11-5/16	16	17-3/8	20-1/2							
150	14-9/16	1-15/16	1/2 x 1/4	15-13/16	11-1/2	13-3/4	12-1/16	17-7/8	19-3/8	20-1/4							
165	16-3/16	1-15/16	1/2 x 1/4	17-3/16	12-3/4	15-1/4	12-7/8	18-1/4	20-1/2	23-7/4							
182	17-13/16	2-3/16	1/2 x 1/4	19-1/8	14	16-3/4	13-7/8	20	22-1/2	23-1/4							
200	19-11/16	2-3/16	1/2 x 1/4	20-3/4	15-3/4	18-3/4	15-3/8	22	25-1/2	23-5/8							
222	21-9/16	2-7/16	5/8 x 5/16	23-7/16	17-3/16	20-7/16	16-5/16	24	27-3/8	25-13/16							
245	24	2-11/16	5/8 x 5/16	25-9/16	19	22-11/16	18	28-13/16	33	25-7/8	24-9/16	24-7/8	24-5/8	24-7/8	24-9/16	24-7/8	
270	26-7/16	2-7/16	5/8 x 5/16	28-3/16	20-7/8	24-15/16	19-1/4	30-13/16	35-1/2	28-1/4	25-7/16	23-7/8	27	23-7/8	25-1/4	23-7/8	
300	29-1/8	2-11/16	5/8 x 5/16	31-9/16	22-15/16	27-3/8	20-7/8	33-7/8	38-3/4	30-7/8	28-3/8	28-3/8	29-5/8	28-3/8	24-7/8	23-3/8	
330	32-3/8	2-11/16	5/8 x 5/16	34-3/8	25-3/8	30-5/16	22-9/16	35-11/16	41-7/8	34-1/2	30-13/16	28-1/8	32-13/16	28-1/8	29	28-1/8	
365	35-9/16	2-11/16	5/8 x 5/16	38-5/16	27-7/8	33-1/4	24-5/8	38-15/16	45-1/4	37-3/4	33-3/4	28-5/16	35-15/16	31-7/8	31-7/8	26-1/8	
402	39-3/8	2-15/16	3/4 x 3/8	42	30-3/4	36-3/4	27-1/2	42-3/8	51-1/4	41-7/8	37-1/4	31-1/4	39-11/16	33-13/16	34-5/8	28	
445	43-7/16	2-15/16	3/4 x 3/8	46-1/2	33-7/8	40-1/2	30-1/16	45-3/8	54-3/4	45-7/8	41	34-3/8	43-5/8	37-3/16	37-1/8	30-9/16	
490	48	3-3/16	3/4 x 3/8	51-1/16	37-3/8	44-11/16	32-15/16	48-13/16	59-1/2	50-5/16	45-3/16	37-13/16	48-1/8	41	39-5/8	33-7/16	
542	52-7/8	3-7/16	7/8 x 7/16	56-13/16	41-1/16	49-3/16	36	53-3/16	63-1/4	55-3/8	49-11/16	41-9/16	53-1/8	45-1/16	43-3/8	36-1/2	
600	58-1/2	3-11/16	7/8 x 7/16	62-13/16	45-3/8	54-5/16	39-9/16	57-13/16	69-1/8	60-7/8	54-13/16	45-7/8	58-3/8	49-3/4	47-1/16	40-1/16	
660	64-3/4	3-11/16	7/8 x 7/16	68-11/16	68-11/16	60-1/8	44-1/16	63-5/16	75-7/8	67	60-5/8	50-11/16	64-9/16	54-15/16	51-1/16	44-9/16	
730	71-3/16	RF	RF	RF	RF	RF	RF	RF	RF	RF	RF	RF	RF	RF	RF	RF	
807	78-3/4	RF	RF	RF	RF	RF	RF	RF	RF	RF	RF	RF	RF	RF	RF	RF	
890	87-1/8	RF	RF	RF	RF	RF	RF	RF	RF	RF	RF	RF	RF	RF	RF	RF	
FAN SIZE	G	J	K	L	M	N	P	Q	R	S	T	U	W	BB	CC	DD	EE
135	13-7/16	6-15/16	28-7/32	3	18-7/8	10-11/16	1-1/2	6-7/32	8-27/32	11-7/8	5-3/16	8-1/16	1-1/8	9-1/2	11-3/8	13-5/16	23-3/16
150	15-7/16	7-7/16	28-3/4	3	18-7/8	11-3/4	1-1/2	6-3/4	9-3/8	11-7/8	6-3/16	9-1/16	1-15/32	10-1/2	12-1/2	14-5/8	25-17/32
165	16-9/16	8-1/8	34-25/32	3-1/2	23-3/4	13-1/16	1-1/2	7-13/32	10-1/32	16-3/4	6-3/4	9-5/8	1-9/32	11-9/16	13-13/16	16-3/16	27-21/32
182	18-9/16	8-3/4	35-7/16	3-1/2	23-3/4	14-3/8	1-1/2	8-1/16	10-11/16	16-3/4	7-3/4	10-5/8	1-5/8	12-3/4	15-3/16	17-13/16	30-1/4
200	20-9/16	9-1/2	36-11/16	3-1/2	24-1/4	15-7/8	2	9-1/16	11-15/16	16-1/4	8-3/4	11-3/8	1-3/8	14-5/16	17	19-7/8	34-1/8
222	22-9/16	10-1/4	40-9/16	4-1/4	26-5/8	17-3/8	2	9-13/16	12-11/16	18-5/8	9-11/16	12-13/16	2-7/32	15-5/8	18-9/16	21-3/4	36-29/32
245	24-9/16	11-1/4	41-9/16	4-1/4	26-5/8	19-3/8	2	10-13/16	13-11/16	18-5/8	12-1/2	15-5/8	1-31/32	17-5/16	20-5/8	24-1/8	42-3/32
270	27-9/16	12-3/4	42-17/32	4-1/4	26-5/8	21-5/16	2	11-25/32	14-21/32	18-5/8	13-3/4	16-7/8	2-3/16	19	22-5/8	26-1/2	45-3/4
300	30-9/16	13-13/16	47-1/4	4-3/4	29-1/4	23-1/2	2	12-7/8	15-3/4	21-1/4	15-3/8	18-1/2	2-15/16	20-7/8	24-7/8	29-1/8	50
330	33-9/16	15-1/8	48-9/16	4-3/4	29-3/4	26-1/8	2-1/2	14-7/16	17-9/16	20-3/4	16-7/16	19-13/16	2-5/8	23-1/16	27-9/16	32-5/16	55-3/16
365	36-9/16	16-7/16	49-7/8	4-3/4	29-3/4	28-3/4	2-1/2	15-3/16	18-7/8	20-3/4	18-1/8	20-3/4	3-7/16	25-5/16	30-3/16	35-7/16	60
402	41-9/16	17-15/16	53-3/4	5-1/4	30-3/8	31-3/4	3	17-5/8	20-7/8	21-3/8	20-5/8	24-3/8	3-3/8	27-15/16	33-3/8	39-3/16	67-1/4
445	44-9/16	19-9/16	55-3/8	5-1/4	30-3/8	35	3	19-1/4	22-1/2	21-3/8	22-3/8	26-1/8	3-7/8	30-3/4	36-3/4	43-1/8	73
490	49-9/16	21-7/16	64-11/32	6-1/2	37-1/4	38-11/16	3	21-3/32	24-11/32	27-1/4	24-3/4	28-1/2	4	33-7/8	40-1/2	47-5/8	79-13/16
542	53-5/8	24-1/16	72-3/16	7-3/4	41-7/8	42-7/8	3	23-3/16	26-7/16	31-3/4	26-5/8	30-3/8	4-31/32	37-1/4	44-9/16	52-3/8	86-15/32
600	59-3/8	26-3/8	76-1/2	7-3/4	44-1/8	47-1/2	3	25-1/2	28-3/4	33-3/4	29-9/16	33-5/16	5-15/32	41-1/8	49-3/16	57-7/8	94-29/32
660	65-7/8	29-3/8	79	7-3/4	44-1/8	52-1/2	3	28	31-1/4	33-3/4	32-15/16	36-11/16	5-3/16	45-1/2	54-7/16	64-1/16	104-7/16
730	71-7/8	35	RF	RF	RF	RF	RF	RF	RF	RF	RF	RF	RF	RF	RF	RF	RF
807	79-1/2	38-7/16	RF	RF	RF	RF	RF	RF	RF	RF	RF	RF	RF	RF	RF	RF	RF
890	88-1/4	RF	RF	RF	RF	RF	RF	RF	RF	RF	RF	RF	RF	RF	RF	RF	RF

DO NOT USE FOR CONSTRUCTION UNLESS CERTIFIED BY CHICAGO BLOWER CORPORATION. AUTOCAD DRAWINGS ARE AVAILABLE UPON REQUEST.

Unitary Base



NOTES:

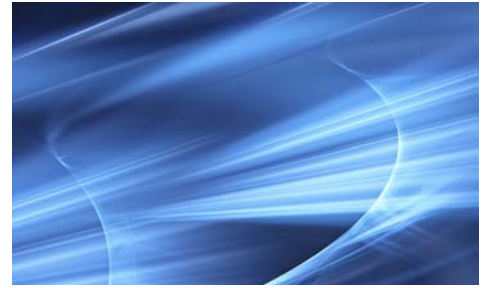
Dimensions shown (in inches) are for clock- wise rotation, top angular up discharge fans with maximum motor frame in position "Z".

Dimensions for counterclockwise rotation, other discharge positions or other motor frames will vary. Dimensions are not for construction unless certified.

Approximate weights include fan, base, motor, V-belt drive, and belt guard. For belt drive centers, consult your Chicago Sales Engineer.

Fan Size	F	JK	TT	TL	CH	TW	Weight (lbs.)	Max Motor Frame
135	37-1/2	35-3/32	37-3/32	17-5/8	6	45-5/8	621	254T
150	38-23/32	36-1/8	38-1/8	19-5/8	6	47-5/8	725	256T
165	43-9/16	42-25/32	44-25/32	20-3/4	6	53-1/4	846	284T
182	45-7/16	44-3/16	46-3/16	22-3/4	6	55-1/4	957	286T
200	48-3/16	46-11/16	48-11/16	25-3/4	6	60-3/4	1276	324T
222	52-11/32	51-3/16	53-3/16	27-5/8	6	62-5/8	1508	326T
245	53-31/32	53-3/16	55-3/16	33-1/2	6	68-1/2	1643	326T
270	55-7/8	55-5/32	57-5/32	36	6	71	1769	326T
300	62-5/8	60-1/2	62-1/2	39-1/4	6	76-9/16	2187	365T
330	66-13/32	64-1/16	66-1/16	42-3/8	6	79-11/16	2398	365T
365	72-3/4	66-7/8	68-7/8	45-3/4	8	87-5/8	3020	405T
402	80-9/16	72-5/8	74-5/8	51-3/4	8	96-1/2	4054	444T
445	88-19/32	76	78	55-1/4	8	100	4623	445T
490	97-9/16	86-19/32	88-19/32	60	8	104-3/4	5240	445T
542	107-3/16	96-11/16	98-11/16	63-3/4	8	108-1/2	5814	447T
600	118-9/32	103-1/4	105-1/4	69-5/8	8	114-3/8	6679	447T
660	131	108-1/4	110-1/4	76-3/8	8	121-1/8	7622	449T
730	146-1/4*	113-5/8	115-5/8	82-1/2	8	127-1/4	7863	445T
807	162-3/4*	121-11/16	123-11/16	94-1/8	8	138-7/8	11330	449T
890	179-1/8*	138-1/4	140-1/4	118-3/8	8	149-1/8	12127	449T

* Shipped as a split housed fan. Maximum dimension to top of wheel; Size 730 - 110", Size 807 - 120", Size 890 - 130"



Centrifugal Airfoil Fans Design 51 Single Width

Engineering Specifications

General:

Provide a high performance, low maintenance, centrifugal fan with airfoil wheel and hyperbolic wheel cone. Fan shall be tested according to AMCA Standard 210 for air performance and AMCA Standard 300 for sound performance. Fans must be manufactured and assembled in the U.S.A. Acceptable vendors: Chicago Blower Corporation

Performance:

Performance shall include steep pressure and non-overloading horsepower characteristics. Mechanical efficiency shall be no less than 80%. Wheel inlet cone to be designed to ensure smooth, stable air flow across the entire operating range. System static pressure changes of 30% shall result in no more than 10% volume reduction.

Housing:

Fan housing and base shall be of welded, heavy gauge construction with seven common discharge positions. Scroll is to be continuously welded air-tight and housing stiffeners and base to be welded construction. Bolted stiffeners and construction of structural members is strictly prohibited.

Rotor:

Wheel shall have cast iron hub lock-bolted to a heavy backplate. Blades must be single sheet continuously welded to the backplate and hyperbolic wheel cone. Wheels to be dynamically balanced to G 6.3 standards in accordance with ISO 1940 and ANSI S2.19 specifications. Shaft shall be turned, ground and polished 1045 hot rolled steel straightened to a maximum T.I.R. of .002 inches and mounted using pillow block bearings. Shaft critical speed shall not be less than 1.2 times maximum RPM.

Mounting:

Housing assembly complete with integral mounting angles for connection to foundation. Adjustable motor base to be welded to base (accessory).

Factory Mounted Motors and Drives: (As Required)

Motors and drives to be factory mounted. Unit to be tested at running speed for vibration and balance. Filtered vibration readings, taken at bearings, not to exceed .15 inches per second.

Inlet Volume Control: (As Required)

Inlet volume control (IVC) device shall be totally enclosed within the inlet cone. IVC device shall be 7-bladed, and pre-spin the incoming air to control volume and pressure. Operation of IVC shall be smooth without fluttering of blades. Performance control shall be repeatable and consistent without slip or hunting for required duty.

Accessories:

- Slip fit inlet
- Flanged Inlet or Outlet - Punched Holes
- Companion Flange - Punched or Unpunched - Inlet, Outlet or Both
- Type "A", "B", "C" AMCA Spark Resistant Construction
- 1-1/2" NPT Housing Drain
- Shaft Seal
- Quick Clamp, Bolted, or Plug Raised Access Door
- Inlet Screen
- Shaft Cooling Wheel with Guard (Required from 300°F - 800°F)
- Adjustable Motor Base
- Shaft and Bearing Guard with Extended Grease Fittings
- Totally Enclosed Belt Guard with Ventilation Panel
- Constant or Adjustable Speed V-Belt Drives - minimum 1.2 S.F.
- Outlet Damper - Parallel or Opposed Blades. Manual Operation with Locking Quadrant or Automatic with Actuators available
- Unitary Base: Heavy channel construction, continuously welded, with fan and motor base welded to insure vibration-free service.
- Horizontal Split Housing

*Setting the
Standard
For Quality*

CHICAGO

*Innovative Engineering
Through Application Analysis*



*Quality Fans
Shaped With
Skill and Pride*



*Global Service Only a
Click Away*



**Sales Offices
Throughout
North America**

*Chicago Blower Fans
are also manufactured
worldwide:*

Argentina, Australia, Brazil,
Chile, China, Colombia,
Denmark, Germany, Greece,
Holland, Hong Kong, India,
Indonesia, Israel, Italy,
Japan, Korea, Malaysia,
New Zealand, Norway,
Philippines, Portugal,
Saudi Arabia, Singapore,
South Africa, Spain, Sweden,
Thailand, Taiwan, Turkey,
Venezuela.

Your Primary Source For Every Fan Requirement

General Duty -

*Airfoil and vane axial
fans for clean exhaust
or supply air*

Industrial Duty -

*Fans to handle
dirty and corrosive
environments*

Heavy Duty -

*Custom engineered
fans for specific
applications*

**CHICAGO BLOWER
CORPORATION**

1675 Glen Ellyn Road, Glendale Heights, Illinois 60139

Phone: 630-858-2600 • Fax: 630-858-7172

www.chicagoblower.com e-mail: fans@chicagoblower.com

Printed in USA
May 2011