

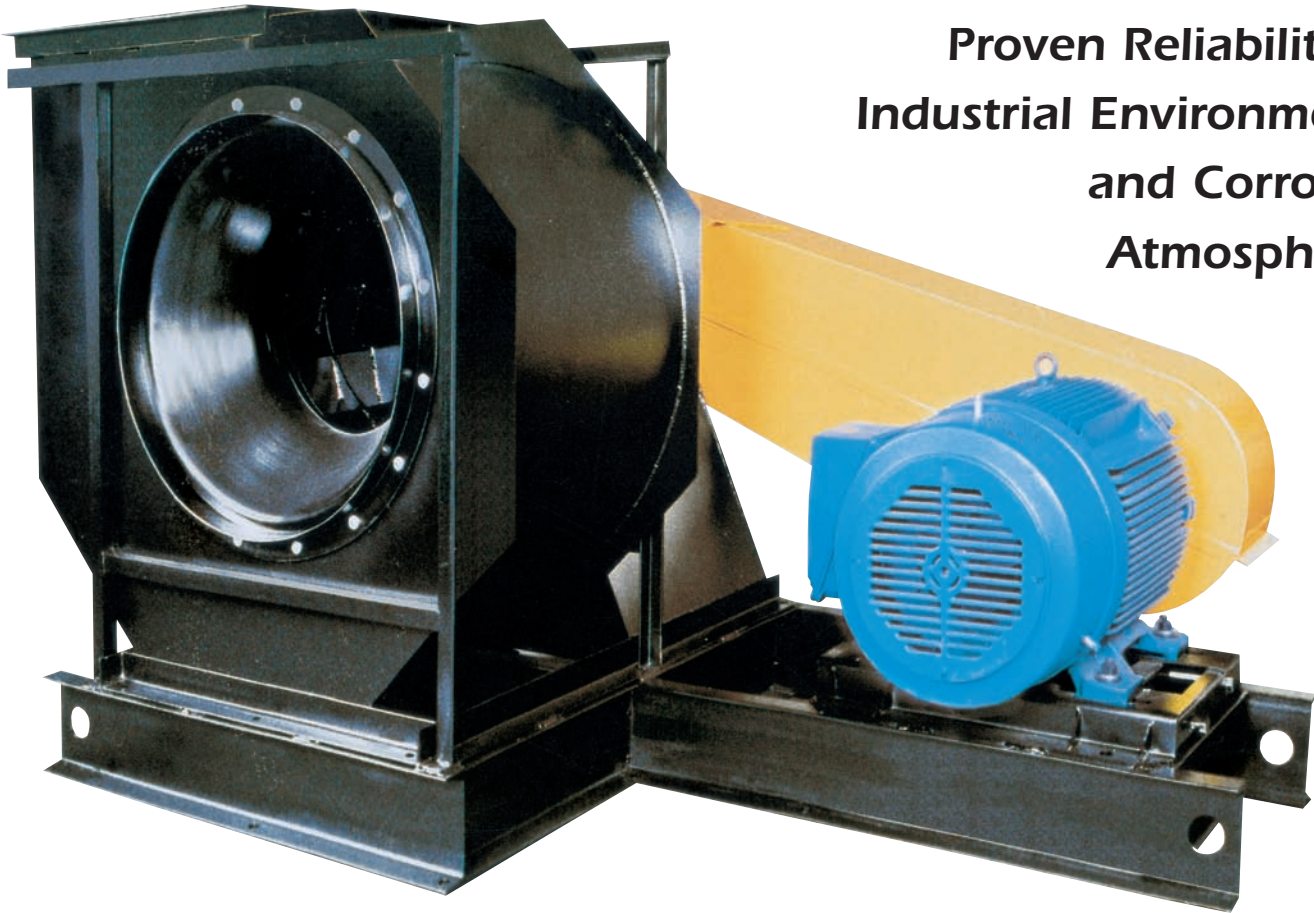


DESIGN 10A

**BACKWARD
INCLINED
WHEELS**



Proven Reliability in Industrial Environments and Corrosive Atmospheres



Design 10A Fans with Backward Inclined Wheels



Chicago's Design 10A is a rugged multi-purpose centrifugal fan equipped with Backward Inclined wheels suited for harsh duty applications. With heavier blades to resist erosion and corrosion, the Design 10A fan provides reliable operation in contaminated air with minimal maintenance. Similar BI wheels are used in Chicago's SOB fans for alternate duty applications. For clean airstreams, Chicago's airfoil bladed fans are recommended.

Thirteen Sizes to 73"

Volumes to 125,000 CFM

Pressures to 30" WG

Arrangements 1, 8, 9, 9H

Construction Classes II, III, IV

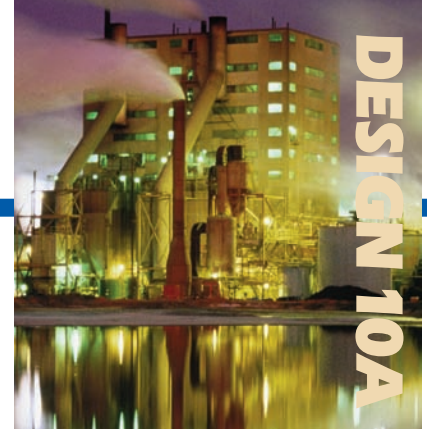
Temperatures to 800°F

APPLICATIONS

Chicago's backward inclined blades are designed to handle corrosive or dusty airstreams. Typical applications include oven circulators, dust collectors, fume exhausters and emission control systems. The Design 10A is also suited for high temperature airstreams to 800°F. The solid steel blades are ideal for custom applied corrosion resistant coatings.

QUALITY

Design 10A fans are built under Chicago Blower's strict "Industrial Quality" standards, the same standards as those used on Chicago's custom engineered fans, to assure exceptional performance and reliability. For application assistance, Chicago Blower representatives are located throughout North America and around the world.



Chicago Blower's wheels feature backward inclined solid steel blades continuously welded to a streamlined wheel cone and heavy steel backplate. The fans can withstand temperatures to 800° when used in conjunction with a shaft cooler and shaft seal. These wheels have true non-overloading horsepower characteristics, mechanical efficiency over 80% and a steep stable pressure curve, ideal for applications with pressure variations. Should actual system pressure reach 30% higher than the pressure anticipated, delivered volume of the Design 10A would be typically reduced by only 10%.

Chicago's D/10A performs reliably in many installations that traditionally use radial bladed fans. Backward inclined blades are more efficient than radial blades, allowing the use of smaller, lower horsepower motors properly sized for the fan's operating horsepower. All classes of Chicago's BI fans exceed AMCA performance standards.

Greater Efficiency
More Economical



CLASS II

Meets specifications for most general industrial applications. Features heavy gauge housings with continuously welded scroll. Sizes 49 to 73 for pressures through 12". Refer to Chicago's SOB fan for smaller sizes.

CLASS III

Same rugged construction as Class II with additional housing bracing and wheels reinforced with a stiffener ring. Fans are equipped with heavier shafts and bearings. Sizes 49 to 60 for pressures through 14". Refer to Chicago's SOB for smaller sizes.

CLASS IV

Still heavier gauge housings, shafts, bearings and two wheel stiffener rings. Class IV D/10A fans are practical alternatives for installations where less efficient radial blades were considered necessary. Sizes 22-1/4 to 49 for pressures through 24".



Chicago Blower Corporation certifies that the Design 10A Fans shown or herein are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and comply with the requirements of the AMCA Certified Ratings Program.

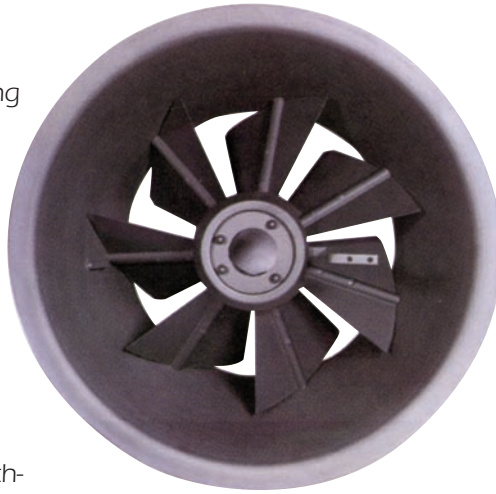


INLET VOLUME CONTROL

When the fan is used for varying or partial load applications, the Inlet Volume Control (IVC) provides precise air control and more efficient operation.

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. Automatic control is achieved by adding an electric or pneumatic actuator. The IVC is suitable for manual operation to 650°F and automatic operation to 350°F.



INLET COLLAR

Inlet connection collar is available for slip connection to ductwork or a flexible joint.

INLET SCREEN

The welded steel wire protective screen mounts within the inlet cone or outside the Inlet Volume Control, when furnished.

SHAFT SEAL

A non-contact seal mounted between steel plates reduces leakage through the shaft opening in the housing.

SHAFT COOLER AND GUARD

Cast aluminum cooling wheel with expanded metal guard raises the allowable temperature limit for arrangement 1 or 9 fans from 300°F to 650°F. Adding a shaft seal on arrangement 1 fans extends the limit to 800°F. Refer to page 6 for high temperature/RPM deration factors.

OUTLET DAMPERS

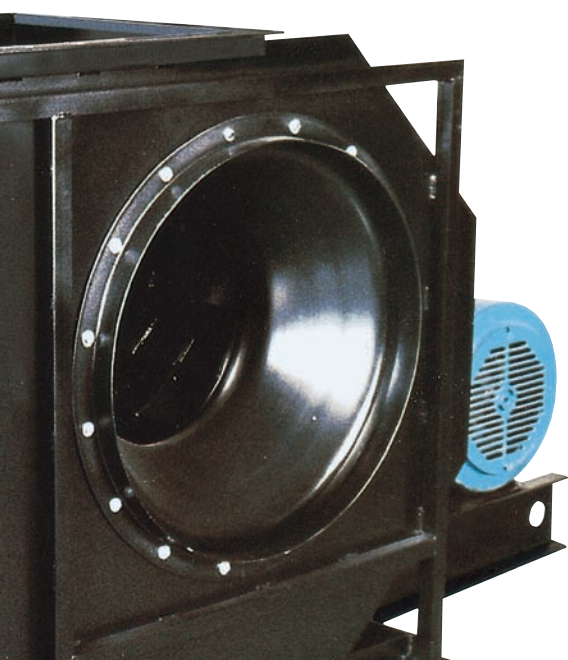
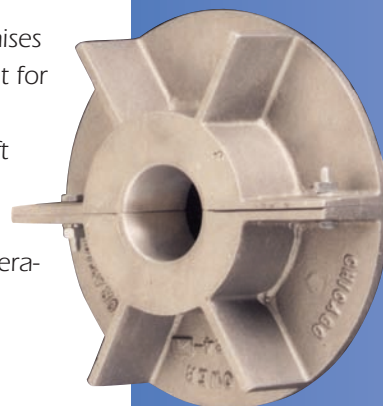
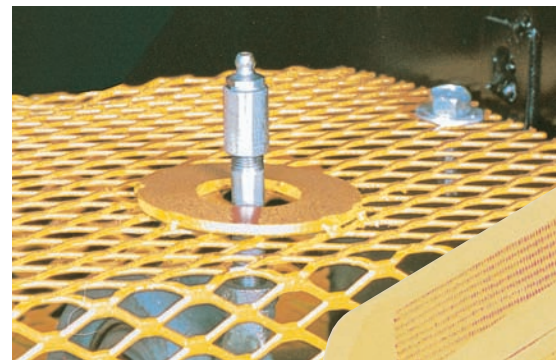
Dampers offer an economical alternative to IVCs. However, they require substantially more horsepower at reduced air volume.

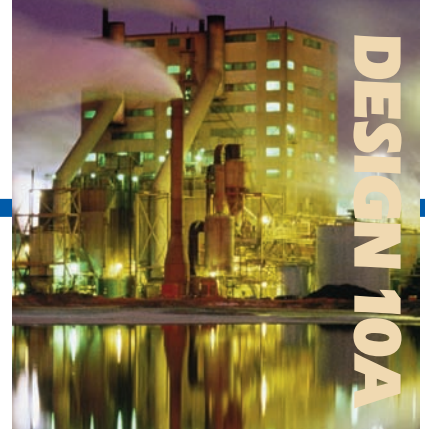
Dampers for all fan classes have double thickness airfoil blades, and are available with parallel or opposed blade rotating louvers.

Dampers have punched flanges on both ends and are suitable for manual or automatic operation. A matching punched flanged outlet is required for mounting. Alternate construction is available for dirty or high temperature applications.

EXTENDED GREASE FITTINGS

Grease fittings allow for external lubrication without removal of shaft and bearing guard.





SHAFT AND BEARING GUARD

The expanded metal guard encloses the shaft and bearings. For easier lubrication, 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 DOOR

The flush mounted door features quick opening tension clamps with neoprene gasket to 300°F and asbestos-free gasket to 800°F.

PLUG TYPE ACCESS DOOR

Bolted, round door is raised 4" off the scroll to provide clearance for insulation and includes an asbestos-free gasket.

HOUSING DRAIN

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

INLET BOX

The bolt-on inlet box simplifies ductwork connection when a straight horizontal connection is not feasible. Assures dependable fan performance when a sharp turn is required at the fan inlet.

Performance and Convenience Options

SPLIT HOUSINGS

To facilitate wheel removal, fans can be furnished with horizontal split housings. Housing splits are caulked and bolted when the fan is shipped assembled. Split housings are standard on Sizes 66 and above.

SPARK RESISTANT CONSTRUCTION

AMCA Type C spark resistant construction substitutes an aluminum inlet cone and adds a drive side aluminum buffing tube between the wheel, shaft and housing. Available with all classes and sizes, arrangement 1 and 9, Maximum temperature is 600°F. Not available when the fan is equipped with an IVC. Requires customer to electrically ground fan.

UNITARY BASE

Fan and adjustable motor base are welded onto a unitary base of continuously welded structural steel channel. (Refer to page 17 for dimensions.)

SPECIAL PAINT AND CORROSION RESISTANT COATINGS

Numerous coatings are available to meet the most stringent specifications.





High Temperature and Altitude Fan Selection

Chicago Design 10A Type B Centrifugal Fans are perfectly suited for handling hot gases for air at high temperature applications such as induced draft and industrial ovens. Fans in arrangements 1, 8, and 9H are capable of temperatures up to 800°F with the addition of a shaft seal and shaft cooler, while arrangement 9 (L or R) fans have a maximum temperature of 650°F. All fans should be operated within the maximum RPM limits for each class and these limits should be derated per maximum allowable speed, Table III.

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

EXAMPLE:

Select a fan to handle 45,000 CFM at 5.5" SP at 700°F and at 2000 feet altitude.

1. Refer to Table I. At 700° F and 2000 feet altitude, the correction factor is 2.35
2. Corrected SP is $2.35 \times 5.5" = 13"$ SP at 70°F and sea level.
3. Using the fan rating tables, selection of the proper size fan is now based on 45,000 CFM at 13" SP. These specifications indicate that one selection available is the size 40-1/4 Class IV fan which shows a performance of 45,000 CFM at 13" SP, requiring 130.7 BHP at 1495 RPM.
4. To correct the BHP, divide 130.7 by $2.35 = 55.61$ BHP, which is the corrected BHP at 700°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 IV Wheel Deration Factor from Table III. The wheel maximum speed @ 700°F is $2088 \text{ RPM} \times .86 = 1796 \text{ RPM}$. Then multiply the maximum shaft speed from Table II by the Shaft Deration Factor from Table III. The shaft maximum speed @ 700°F is $2088 \times .94 = 1963$. Thus, the maximum allowable fan speed is 1796 RPM.
 - b. Check the above maximum allowable fan speed against the selected fan RPM. Since the fan operating speed of 1495 RPM is within safe limits of the maximum allowable of 1796 RPM, the 40-1/4 Class IV fan will deliver 45,000 CFM at 5.5" SP, 700°F and 2000 feet altitude requiring 55.61 HP.

TABLE I – TEMPERATURE AND ALTITUDE CORRECTION

AIR TEMP (F°)	ALTITUDE (feet) with BAROMETRIC PRESSURE (HG)									
	0'	500'	1000'	1500'	2000'	2500'	3000'	3500'	4000'	5000'
	29.92	29.38	28.86	28.33	27.82	27.31	26.82	26.32	25.84	24.90
-15	.79	.81	.82	.84	.85	.87	.88	.90	.96	1.00
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" barometric pressure and 70° F

TABLE II – MAXIMUM RPM AT 70° F

Note: For temperature deration only, not for air performance.

FAN SIZE	CLASS II		CLASS III		CLASS IV	
	Shaft	Wheel	Shaft	Wheel	Shaft	Wheel
22-1/4	•	•	•	•	3800	3963
24-1/2	•	•	•	•	2920	3398
27	•	•	•	•	2964	3263
30	•	•	•	•	2771	2831
33	•	•	•	•	2529	2673
36-1/2	•	•	•	•	2271	2271
40-1/4	•	•	•	•	2088	2088
44-1/2	•	•	•	•	1687	1820
49	925	1035	1165	1165	1682	1705
54-1/4	836	836	1052	1052	N.A.	N.A.
60	756	866	951	995	N.A.	N.A.
66	687	749	N.A.	N.A.	N.A.	N.A.
73	621	649	N.A.	N.A.	N.A.	N.A.

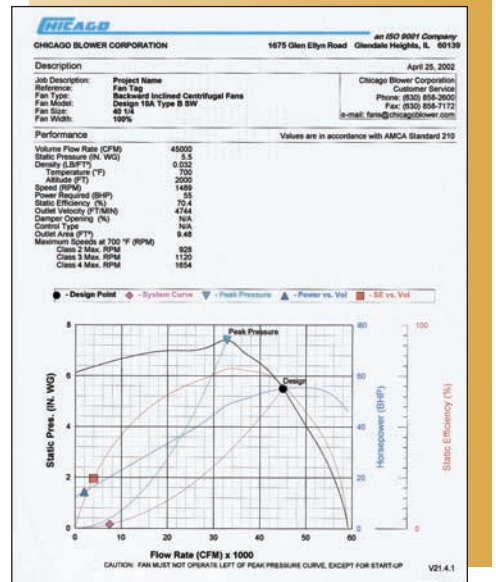
TABLE III – TEMPERATURE/SPEED DERATION

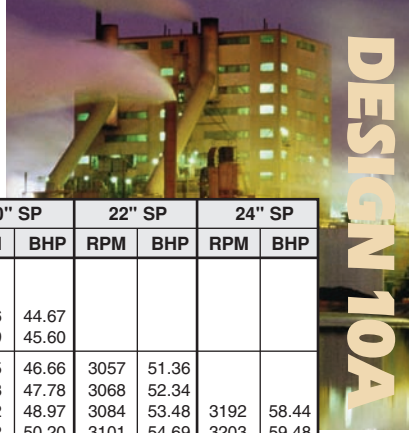
Temp. (F°)	Temperature Deration Factors		
	Standard Wheel	Shaft	
		C/2,C/3	C/4
70	1.00	1.00	1.00
100	.99	.99	1.00
200	.93	.96	1.00
300	.89	.95	.99
350	.88	.95	.98
400	.86	.94	.98
450	.84	.93	.97
500	.82	.92	.97
550	.81	.90	.96
600	.79	.88	.96
650	.78	.87	.95
700	.77	.86	.94
800	.68	.83	.93

• For these sizes and classes consult Chicago's SQB Fan Bulletin

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

For software and assistance, contact your local Chicago Blower sales engineer.





DESIGN 10A

CHICAGO BLOWER BACKWARD INCLINED FAN Max. RPM CLASS IV 3600

SIZE 22-1/4

24 In. Wheel Diameter
2.90 Sq. Ft. Outlet Area

Peak BHP = 1.937(RPM ÷ 1000)³
Tip Speed (fpm) = 6.28 x RPM

CFM	OV FPM	10" SP		11" SP		12" SP		13" SP		14" SP		16" SP		18" SP		20" SP		22" SP		24" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
10750	3707	2292	23.16	2355	24.98	2416	26.80	2477	28.62	2536	30.46	2651	34.25	2770	38.38						
11000	3793	2316	23.94	2378	25.80	2439	27.66	2498	29.52	2557	31.39	2670	35.21	2784	39.27						
11250	3879	2341	24.74	2402	26.64	2462	28.54	2521	30.44	2578	32.35	2690	36.21	2801	40.25	2916	44.67				
11500	3966	2365	25.56	2426	27.49	2485	29.44	2543	31.39	2600	33.33	2711	37.24	2819	41.28	2929	45.60				
11750	4052	2390	26.40	2450	28.37	2508	30.35	2566	32.34	2622	34.33	2733	38.31	2839	42.38	2945	46.66	3057	51.36		
12000	4138	2416	27.26	2475	29.26	2532	31.28	2589	33.32	2645	35.35	2754	39.40	2859	43.51	2963	47.78	3068	52.34		
12250	4224	2441	28.15	2495	30.18	2557	32.24	2613	34.31	2668	36.38	2776	40.52	2880	44.69	2982	48.97	3084	53.48	3192	58.44
12500	4310	2467	29.06	2525	31.12	2581	33.21	2637	35.32	2691	37.43	2798	41.66	2901	45.90	3002	50.20	3101	54.69	3203	59.48
12750	4397	2493	30.00	2550	32.09	2606	34.21	2661	36.35	2715	38.50	2820	42.82	2923	47.13	3022	51.49	3119	55.97	3218	60.70
13000	4483	2520	30.98	2576	33.08	2631	35.23	2686	37.40	2739	39.59	2843	43.99	2945	48.39	3043	52.81	3139	57.31	3235	62.02
13250	4569	2546	31.98	2602	34.10	2657	36.28	2711	38.48	2763	40.71	2867	45.19	2967	49.67	3065	54.16	3150	58.70	3253	63.40
13500	4655	2573	33.01	2628	35.16	2682	37.35	2736	39.58	2788	41.84	2890	46.40	2989	50.97	3086	55.53	3180	60.14	3272	64.84
13750	4741	2600	34.07	2655	36.24	2708	38.46	2761	40.71	2813	43.00	2914	47.63	3012	52.29	3108	56.93	3202	61.60	3293	66.34
14000	4828	2627	35.16	2681	37.35	2735	39.59	2787	41.87	2838	44.19	2938	48.89	3035	53.63	3130	58.36	3223	63.10	3313	67.89
14250	4914	2655	36.29	2708	38.50	2761	40.76	2813	43.07	2863	45.41	2963	50.17	3059	54.99	3153	59.81	3245	64.63	3335	69.48
14500	5000	2683	37.45	2735	39.68	2787	41.96	2839	44.29	2889	46.65	2987	51.48	3083	56.37	3176	61.28	3267	66.18	3356	71.09
14750	5086	2711	38.64	2763	40.89	2814	43.20	2865	45.54	2915	47.93	3012	52.81	3107	57.77	3199	62.77	3289	67.75	3378	72.74
15000	5172	2739	39.87	2790	42.14	2841	44.46	2891	46.83	2941	49.24	3037	54.17	3131	59.21	3222	64.28	3312	69.35	3399	74.42
15500	5345	2798	42.44	2847	44.74	2896	47.10	2945	49.51	2994	51.97	3088	56.99	3180	62.14	3270	67.36	3358	72.61	3444	77.85
16000	5517	2857	45.14	2904	47.49	2952	49.89	2999	52.33	3047	54.83	3140	59.95	3231	65.20	3319	70.56	3405	75.96	3490	81.38
16500	5690	2918	48.00	2963	50.39	3009	52.82	3055	55.31	3101	57.84	3193	63.04	3282	68.40	3369	73.87	3453	79.41	3536	84.99
17000	5862	2979	51.01	3023	53.44	3067	55.91	3112	58.44	3157	61.01	3246	66.29	3334	71.73	3419	77.31	3503	82.98	3584	88.71
17500	6034	3042	54.18	3084	56.65	3126	59.16	3169	61.73	3213	64.34	3300	69.70	3386	75.22	3470	80.89	3553	86.68		
18000	6207	3106	57.51	3146	60.02	3187	62.58	3228	65.18	3270	67.83	3355	73.26	3440	78.87	3523	84.63				
18500	6379	3170	61.00	3209	63.55	3248	66.15	3288	68.80	3329	71.49	3411	77.00	3494	82.68	3575	88.52				
19000	6552	3236	64.66	3273	67.23	3311	69.90	3349	72.59	3389	75.32	3468	80.91	3549	86.67						
19500	6724	3302	68.49	3338	71.14	3374	73.83	3412	76.56	3449	79.33	3526	84.99								
20000	6897	3369	72.50	3403	75.20	3438	77.91	3474	80.70	3511	83.52	3585	89.26								
20500	7069	3436	76.68	3470	79.43	3504	82.21	3538	85.03	3573	87.89										
21000	7241	3504	81.03	3536	83.85	3569	86.69														

CHICAGO BLOWER BACKWARD INCLINED FAN Max. RPM CLASS IV 2920

SIZE 24-1/2

26-7/16 In. Wheel Diameter
3.52 Sq. Ft. Outlet Area

Peak BHP = 3.142(RPM ÷ 1000)³
Tip Speed (fpm) = 6.92 x RPM

CFM	OV FPM	10" SP		11" SP		12" SP		13" SP		14" SP		16" SP		18" SP		20" SP		22" SP		24" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
13000	3693	2078	27.97	2135	30.17	2191	32.37	2245	34.57	2299	36.79	2404	41.40	2513	46.43						
13250	3764	2095	28.74	2152	30.99	2207	33.23	2262	35.47	2315	37.72	2418	42.34	2523	47.29						
13500	3835	2114	29.53	2169	31.82	2224	34.10	2278	36.38	2331	38.67	2433	43.32	2535	48.23						
13750	3906	2132	30.34	2187	32.66	2241	34.99	2295	37.31	2347	39.64	2448	44.34	2548	49.24	2651	54.55				
14000	3977	2150	31.16	2205	33.52	2259	35.89	2312	38.26	2363	40.62	2464	45.38	2562	50.29	2661	55.52				
14250	4048	2169	32.00	2223	34.39	2276	36.80	2329	39.21	2380	41.62	2480	46.45	2576	51.38	2673	56.58	2775	62.30		
14500	4119	2188	32.86	2242	35.29	2294	37.73	2346	40.18	2397	42.64	2496	47.54	2592	52.52	2686	57.70	2783	63.25		
14750	4190	2207	33.74	2260	36.19	2312	38.68	2364	41.17	2414	43.67	2512	48.65	2607	53.68	2700	58.86	2794	64.35		
15000	4261	2226	34.64	2279	37.12	2331	39.64	2381	42.17	2431	44.71	2529	49.78	2623	54.88	2715	60.08	2806	65.54	2902	71.44
15250	4332	2246	35.57	2298	38.07	2349	40.62	2399	43.19	2449	45.77	2545	50.92	2639	56.09	2730	61.33	2819	66.78	2911	72.56
15500	4403	2265	36.52	2317	39.05	2368	41.62	2418	44.22	2467	46.84	2562	52.09	2655	57.33	2745	62.62	2833	68.07		
15750	4474	2285	37.49	2336	40.04	2387	42.64	2436	45.28	2485	47.93	2579	53.26	2672	58.59	2761	63.95	2848	69.41		
16000	4545	2305	38.48	2356	41.06	2406	43.68	2455	46.35	2503	49.04	2597	54.45	2688	59.86	2777	65.29	2863	70.79		
16250	4616	2325	39.50	2375	42.10	2425	44.75	2473	47.44	2521	50.17	2614	55.66	2705	61.16	2793	66.66	2879	72.21		
16500	4688	2345	40.55	2395	43.17	2444	45.84	2492	48.56	2540	51.32	2632	56.88	2722	62.47	2809	68.04	2895	73.66		
16750	4759	2365	41.62	2415	44.26	2464	46.96	2511	49.70	2558	52.49	2650	58.12	2739	63.80	2826	69.45	2911	75.14		
17000	4830	2386	42.72	2435	45.38	2483	48.10	2531	50.87	2577	53.68	2668	59.38	2756	65.14	2843	70.88				
17250	4901	2406	43.84	2455	46.52	2503	49.26	2550	52.05	2596	54.89	2686	60.66	2774	66.49	2859	72.33				
17500	4972	2427	45.00	2475	47.69	2523	50.45	2569	53.27	2615	56.13	2705	61.96	2791	67.87	2876	73.79				
17750	5043	2448	46.18	2496	48.89	2543	51.67	2589	54.51	2634	57.40	2723	63.29	2809	69.26	2894	75.27				
18000	5114	2469	47.38	2516	50.12	2563	52.92	2609	55.78	2654	58.69	2742	64.63	2827	70.68	2911	76.77				
18250	5185	2491	48.62	2537	51.38	2583	54.20	2629	57.08	2673	60.01	2761	66.00	2846	72.12						
18500	5256	2513	49.89	2558	52.66	2603	55.50	2649	58.40	2693	61.35	2780	67.40	2864	73.57						
19000	5398	2556	52.51	2600	55.32	2645	58.20	2689	61.14	2733	64.13	2818	70.27	2901	76.56						
19500	5540	2601	55.25	2644	58.10	2687	61.02	2730	64.00	2773	67.03	2857	73.25								
20000	5682	2646	58.11	2688	61.01	2729	63.96	2771	66.98	2813	70.05	2897	76.36								
20500	5824	2692	61.																		

CHICAGO BLOWER BACKWARD INCLINED FAN Max. RPM CLASS IV 2964

SIZE 27

29-1/8 In. Wheel Diameter
4.27 Sq. Ft. Outlet Area

Peak BHP = 5.10(RPM÷1000)³
Tip Speed (fpm) = 7.62 x RPM

CFM	OV FPM	10" SP		11" SP		12" SP		13" SP		14" SP		16" SP		18" SP		20" SP		22" SP		24" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
13000	3044	1748	26.1	1806	28.4	1866	30.9														
13500	3162	1772	27.4	1827	29.7	1883	32.2	1941	34.8												
14000	3279	1796	28.8	1850	31.1	1904	33.6	1958	36.1	2014	38.9										
14500	3396	1820	30.2	1874	32.6	1927	35.1	1979	37.7	2031	40.3										
15000	3513	1845	31.6	1899	34.1	1951	36.7	2001	39.3	2052	41.9	2154	47.6								
15500	3630	1871	33.1	1924	35.7	1975	38.3	2025	41.0	2074	43.7	2171	49.2								
16000	3747	1898	34.6	1949	37.3	2000	40.0	2049	42.8	2097	45.5	2192	51.1	2287	57.1						
16500	3864	1925	36.2	1975	39.0	2025	41.8	2074	44.6	2121	47.4	2214	53.0	2305	59.0	2402	65.6				
17000	3981	1953	37.9	2002	40.7	2051	43.6	2099	46.5	2146	49.3	2237	55.1	2326	61.1	2416	67.4				
17500	4098	1981	39.5	2030	42.5	2078	45.4	2125	48.4	2171	51.3	2261	57.3	2348	63.3	2434	69.6	2523	76.4		
18000	4215	2009	41.3	2057	44.3	2105	47.3	2151	50.4	2196	53.4	2285	59.5	2371	65.6	2455	71.9	2540	78.6		
18500	4333	2038	43.1	2086	46.2	2132	49.3	2178	52.4	2223	55.5	2310	61.8	2395	68.0	2478	74.4	2559	81.0	2642	88.0
19000	4450	2068	45.1	2114	48.1	2160	51.3	2205	54.5	2249	57.7	2336	64.1	2420	70.5	2501	77.0	2580	83.6	2660	90.6
19500	4567	2097	47.0	2143	50.2	2189	53.4	2233	56.6	2276	59.9	2361	66.5	2444	73.1	2525	79.7	2603	86.4	2680	93.3
20000	4684	2127	49.1	2173	52.3	2217	55.5	2261	58.8	2304	62.2	2388	68.9	2469	75.7	2549	82.4	2627	89.3	2702	96.2
20500	4801	2158	51.3	2202	54.5	2246	57.8	2290	61.1	2332	64.5	2415	71.4	2495	78.3	2574	85.3	2650	92.2	2725	99.2
21000	4918	2188	53.5	2232	56.8	2276	60.1	2319	63.5	2360	66.9	2442	74.0	2521	81.1	2599	88.2	2675	95.3	2749	102.4
21500	5035	2220	55.8	2263	59.1	2306	62.5	2348	66.0	2389	69.5	2470	76.6	2548	83.8	2624	91.1	2699	98.4	2773	105.7
22000	5152	2252	58.3	2294	61.6	2336	65.0	2377	68.5	2418	72.0	2498	79.3	2575	86.7	2651	94.1	2724	101.6	2797	109.0
22500	5269	2284	60.8	2325	64.2	2366	67.6	2407	71.1	2448	74.7	2526	82.1	2603	89.6	2677	97.2	2750	104.8	2822	112.4
23000	5386	2317	63.4	2357	66.8	2397	70.3	2437	73.9	2477	77.5	2555	84.9	2630	92.6	2704	100.3	2776	108.1	2847	115.9
23500	5504	2350	66.1	2389	69.6	2428	73.1	2468	76.7	2507	80.4	2584	87.9	2659	95.6	2731	103.5	2803	111.4	2827	119.4
24000	5621	2384	69.0	2422	72.4	2460	76.0	2499	79.7	2537	83.4	2613	91.0	2687	98.8	2759	106.8	2829	114.9	2898	123.0
24500	5738	2418	71.9	2455	75.4	2492	79.0	2530	82.7	2568	86.4	2643	94.1	2716	102.0	2787	110.1	2857	118.4	2925	126.6
25000	5855	2453	74.9	2488	78.5	2525	82.1	2562	85.8	2599	89.6	2673	97.4	2745	105.4	2815	113.6	2884	121.9	2952	130.4
25500	5972	2488	78.0	2523	81.7	2558	85.3	2594	89.1	2630	92.9	2703	100.8	2774	108.9	2844	117.2	2912	125.6		
26000	6089	2523	81.3	2557	84.9	2592	88.7	2627	92.5	2662	96.3	2733	104.2	2804	112.4	2873	120.8	2940	129.4		
26500	6206	2559	84.6	2592	88.3	2626	92.1	2660	95.9	2694	99.8	2764	107.8	2834	116.1	2902	124.6				
27000	6323	2595	88.1	2627	91.8	2660	95.6	2693	99.5	2727	103.5	2796	111.5	2864	119.9	2932	128.4				
27500	6440	2631	91.7	2663	95.5	2695	99.3	2727	103.2	2760	107.2	2827	115.4	2895	123.8	2961	132.4				
28000	6557	2668	95.4	2698	99.2	2730	103.1	2761	107.1	2794	111.1	2859	119.3	2925	127.8						

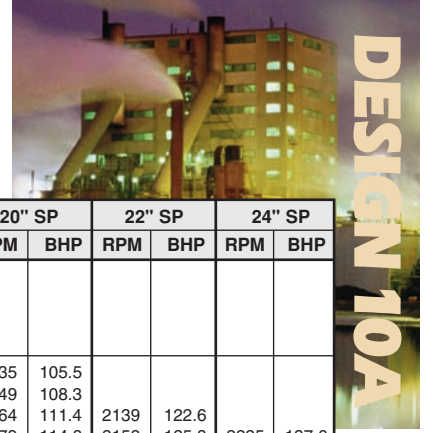
CHICAGO BLOWER BACKWARD INCLINED FAN Max. RPM CLASS IV 2771

SIZE 30

32-3/8 In. Wheel Diameter
5.72 Sq. Ft. Outlet Area

Peak BHP = 8.36(RPM÷1000)³
Tip Speed (fpm) = 8.48 x RPM

CFM	OV FPM	10" SP		11" SP		12" SP		13" SP		14" SP		16" SP		18" SP		20" SP		22" SP		24" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
18000	3147	1656	37.1	1707	40.2	1760	43.5	1812	47.0	1864	50.7										
18500	3234	1674	38.5	1723	41.6	1774	44.9	1825	48.4	1876	52.0										
19000	3322	1693	40.0	1741	43.2	1789	46.4	1839	49.8	1889	53.4										
19500	3409	1713	41.6	1759	44.7	1806	48.0	1854	51.4	1902	55.0	1999	62.7								
20000	3497	1734	43.2	1779	46.4	1824	49.7	1870	53.1	1917	56.7	2011	64.2								
20500	3584	1755	44.9	1799	48.1	1843	51.5	1887	54.9	1932	58.4	2024	65.9	2116	74.2						
21000	3671	1777	46.7	1820	50.0	1862	53.3	1905	56.7	1949	60.3	2038	67.8	2128	75.9						
21500	3759	1799	48.6	1841	51.8	1882	55.2	1924	58.7	1966	62.2	2053	69.7	2141	77.7	2228	86.5				
22000	3846	1822	50.5	1863	53.8	1903	57.2	1944	60.7	1985	64.2	2068	71.7	2154	79.7	2240	88.4				
22500	3934	1845	52.4	1885	55.8	1925	59.3	1964	62.8	2004	66.4	2085	73.9	2168	81.8	2252	90.4	2335	99.6		
23000	4021	1868	54.4	1908	57.9	1947	61.4	1985	64.9	2024	68.6	2103	76.1	2183	84.0	2265	92.5	2347	101.7		
23500	4108	1892	56.6	1930	60.0	1969	63.6	2007	67.2	2045	70.8	2121	78.4	2199	86.4	2279	94.8	2360	103.8	2439	113.5
24000	4196	1915	58.7	1954	62.3	1991	65.9	2029	69.5	2066	73.2	2140	80.8	2216	88.8	2294	97.2	2373	106.1	2451	115.7
24500	4283	1939	60.9	1977	64.6	2014	68.2	2051	71.9	2087	75.6	2160	83.3	2234	91.3	2309	99.7	2386	108.6	2464	118.1
25000	4371	1963	63.2	2001	66.9	2037	70.6	2074	74.4	2109	78.2	2181	85.9	2253	93.9	2326	102.4	2400	111.2	2476	120.6
25500	4458	1988	65.6	2024	69.3	2061	73.1	2096	76.9	2132	80.7	2202	88.6	2272	96.7	2343	105.1	2416	114.0	2490	123.3
26000	4545	2012	68.0	2049	71.8	2084	75.7	2119	79.5	2154	83.4	2223	91.3	2292	99.5	2361	108.0	2432	116.8	2504	126.1
26500	4633	2037	70.5	2073	74.4	2108	78.3	2143	82.2	2177	86.2	2245	94.2	2312	102.4	2380	110.9	2449	119.8	2519	129.0
27000	4720	2062	73.0	2097	77.0	2132	81.0	2167	85.0	2200	89.0	2267	97.1	2333	105.4	2400	114.0	2467	122.8	2535	132.1
27500	4808	2087	75.7	2122	79.7	2156	83.8	2190	87.8	2224	91.9	2290	100.1	2355	108.5	2420	117.1	2485	126.0	2552	135.3
28000	4895	2112	78.4	2146	82.5	2181	86.6	2224	90.7	2247	94.8	2313	103.2	2377	111.7	2440	120.4	2504	129.3	2569	138.6
28500	4983	2138	81.1	2172	85.3	2205	89.5	2238	93.7	2271	97.9	2336	106.4	2399	114.9	2461	123.7	2524	132.7	2587	142.0
29000	5070	2163	84.0	2197	88.2	2230	92.5	2263	96.8	2295	101.0	2359	109.6	2421	118.3	2483	127.1	2544	136.2	2606	145.6
29500	5157	2189	86.9	2222	91.2	2255	95.5	2287	99.9	2319	104.2	2382	112.9	2444	121.7	2504	130.7	2565	139.8	2626	149.2
30000	5245	2215	89.8	2248	94.3	2280	98.7	2312	103.1	2343	107.5	2406	116.3	2467	125.3	2527	134.3	2586	143.5	2646	153.0
30500	5332	2242	92.9	2273	97.4	2305	101.9	2336	106.4	2368	110.9	2429	119.8	2490	128.9	2549	138.0	2608	147.3	2666	156.9
31000	5420	2268	96.0	2299	100.6	2330	105.2	2362	109.7	2392	114.3	2453	123.4	2513	132.6	2572	141.8	2629	151.2	2687	160.8
31500	5507	2295	99.2	2325	103.9	2356	108.5	2387	113.												



CHICAGO BLOWER BACKWARD INCLINED FAN Max. RPM CLASS IV 2529

SIZE 33

35-9/16 In. Wheel Diameter
6.38 Sq. Ft. Outlet Area

Peak BHP = 13.36(RPM ÷ 1000)³
Tip Speed (fpm) = 9.31 x RPM

CFM	OV FPM	10" SP		11" SP		12" SP		13" SP		14" SP		16" SP		18" SP		20" SP		22" SP		24" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
23000	3605	1549	48.9	1592	52.8	1636	56.7	1681	60.9	1726	65.2										
23750	3723	1572	51.4	1613	55.2	1655	59.2	1698	63.3	1742	67.6	1829	76.9								
24500	3840	1596	53.9	1636	57.8	1676	61.8	1717	65.9	1759	70.2	1844	79.4	1928	89.5						
25250	3958	1620	56.6	1659	60.5	1698	64.5	1737	68.7	1777	73.0	1859	82.1	1941	92.0						
26000	4075	1646	59.4	1683	63.4	1721	67.5	1759	71.6	1798	76.0	1876	85.0	1956	94.8	2035	105.5				
26750	4193	1672	62.3	1708	66.4	1745	70.5	1782	74.7	1819	79.1	1894	88.1	1971	97.8	2049	108.3				
27500	4310	1698	65.4	1734	69.5	1770	73.7	1805	78.0	1841	82.3	1914	91.5	1988	101.1	2064	111.4	2139	122.6		
28250	4428	1725	68.5	1760	72.7	1795	77.0	1830	81.3	1864	85.8	1934	94.9	2006	104.6	2079	114.8	2153	125.8	2225	137.6
29000	4545	1752	71.8	1786	76.1	1821	80.5	1855	84.9	1888	89.4	1956	98.6	2025	108.3	2096	118.5	2168	129.3	2239	140.9
29750	4663	1779	75.3	1813	79.6	1847	84.1	1880	88.6	1913	93.1	1979	102.4	2046	112.1	2114	122.4	2183	133.1	2253	144.5
30500	4781	1807	78.8	1840	83.3	1873	87.8	1906	92.4	1938	97.0	2003	106.4	2067	116.2	2133	126.4	2200	137.2	2268	148.5
31250	4898	1834	82.5	1868	87.1	1900	91.7	1932	96.3	1964	101.0	2027	110.6	2090	120.4	2153	130.7	2218	141.4	2284	152.7
32000	5016	1863	86.3	1895	91.0	1927	95.7	1959	100.4	1990	105.2	2052	114.9	2113	124.9	2175	135.2	2237	145.9	2301	157.2
32750	5133	1891	90.2	1923	95.0	1955	99.8	1986	104.6	2016	109.5	2077	119.4	2137	129.4	2197	139.8	2258	150.6	2319	161.9
33500	5251	1920	94.2	1951	99.2	1982	104.1	2013	109.0	2043	114.0	2103	124.0	2161	134.2	2220	144.7	2279	155.5	2339	166.8
34250	5368	1949	98.4	1980	103.5	2010	108.5	2040	113.5	2070	118.6	2129	128.8	2186	139.1	2244	149.7	2301	160.7	2359	171.9
35000	5486	1978	102.8	2008	107.9	2038	113.1	2068	118.2	2098	123.4	2155	133.7	2212	144.2	2268	154.9	2324	166.0	2381	177.3
35750	5603	2008	107.2	2037	112.5	2067	117.7	2096	123.0	2125	128.3	2182	138.8	2238	149.5	2293	160.4	2348	171.5	2403	182.9
36500	5721	2037	111.8	2066	117.2	2095	122.6	2124	127.9	2153	133.3	2209	144.1	2264	154.9	2318	165.9	2372	177.2	2426	188.7
37250	5839	2067	116.5	2096	122.1	2124	127.6	2153	133.0	2181	138.5	2236	149.5	2290	160.5	2344	171.7	2397	183.0	2449	194.6
38000	5956	2098	121.4	2126	127.1	2154	132.7	2181	138.3	2209	143.9	2264	155.1	2317	166.3	2370	177.6	2422	189.1	2473	200.8
38750	6074	2128	126.5	2155	132.2	2183	138.0	2210	143.7	2237	149.4	2291	160.8	2344	172.2	2396	183.7	2447	195.4	2498	207.2
39500	6191	2159	131.7	2186	137.5	2213	143.4	2239	149.2	2266	155.1	2319	166.7	2372	178.3	2423	190.0	2473	201.8	2523	213.8
40250	6309	2190	137.0	2216	143.0	2242	149.0	2269	154.9	2295	160.9	2347	172.7	2399	184.6	2450	196.4	2499	208.4		
41000	6426	2221	142.5	2247	148.6	2272	154.7	2298	160.8	2324	166.9	2376	178.9	2427	191.0	2477	203.1	2526	215.2		
41750	6544	2252	148.2	2277	154.4	2303	160.6	2328	166.8	2354	173.0	2404	185.3	2455	197.6	2504	209.9				
42500	6661	2283	154.0	2308	160.4	2333	166.7	2358	173.0	2383	179.3	2433	191.8	2483	204.3						
43250	6779	2315	160.0	2339	166.5	2364	172.9	2388	179.3	2413	185.7	2462	198.5	2511	211.3						
44000	6897	2346	166.1	2371	172.7	2395	179.3	2419	185.9	2443	192.4	2491	205.4								
44750	7014	2378	172.5	2402	179.2	2426	185.9	2450	192.6	2473	199.2	2521	212.5								
45500	7132	2410	179.0	2434	185.8	2457	192.6	2480	199.4	2504	206.2										

CHICAGO BLOWER BACKWARD INCLINED FAN Max. RPM CLASS IV 2271

SIZE 36-1/2

39-3/8 In. Wheel Diameter
7.80 Sq. Ft. Outlet Area

Peak BHP = 24.17(RPM ÷ 1000)³
Tip Speed (fpm) = 10.31 x RPM

CFM	OV FPM	10" SP		11" SP		12" SP		13" SP		14" SP		16" SP		18" SP		20" SP		22" SP		24" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
27500	3526	1346	56.9	1391	61.9	1436	67.2	1480	72.5	1522	77.7	1596	88.1	1672	99.1						
28250	3622	1359	58.9	1403	64.0	1446	69.2	1490	74.6	1532	80.1	1608	90.8	1679	101.6						
29000	3718	1373	61.1	1415	66.1	1457	71.4	1500	76.9	1542	82.4	1621	93.5	1690	104.5	1762	116.1				
29750	3814	1388	63.3	1428	68.4	1469	73.6	1510	79.1	1552	84.8	1632	96.2	1702	107.5	1769	118.9				
30500	3910	1403	65.7	1442	70.7	1481	76.0	1522	81.5	1562	87.2	1642	98.9	1715	110.6	1780	122.1	1849	134.3		
31250	4006	1419	68.2	1457	73.2	1495	78.5	1533	84.0	1573	89.7	1652	101.6	1726	113.6	1793	125.4	1856	137.4		
32000	4103	1436	70.9	1472	75.8	1509	81.1	1546	86.6	1584	92.3	1662	104.3	1737	116.6	1805	128.8	1867	140.9	1932	153.6
32750	4199	1453	73.6	1488	78.6	1524	83.9	1560	89.4	1597	95.1	1672	107.1	1747	119.6	1817	132.2	1880	144.5	1940	157.1
33500	4295	1471	76.5	1505	81.5	1539	86.7	1574	92.2	1610	97.9	1683	110.0	1757	122.6	1828	135.5	1892	148.3	1951	160.9
34250	4391	1489	79.4	1522	84.5	1555	89.8	1589	95.2	1624	100.9	1694	113.0	1767	125.7	1838	138.9	1904	152.0	1964	164.9
35000	4487	1507	82.5	1540	87.6	1572	92.9	1605	98.4	1638	104.1	1707	116.1	1777	128.9	1848	142.2	1915	155.7	1977	169.0
35750	4583	1526	85.6	1558	90.9	1589	96.2	1621	101.7	1653	107.3	1720	119.4	1788	132.2	1858	145.6	1925	159.4	1988	173.1
36500	4679	1545	88.9	1576	94.2	1607	99.6	1638	105.1	1669	110.8	1734	122.8	1800	135.6	1868	149.1	1935	163.1	1999	177.1
37250	4776	1563	92.2	1594	97.7	1625	103.1	1655	108.7	1685	114.3	1748	126.3	1812	139.1	1878	152.7	1945	166.8	2010	181.1
38000	4872	1582	95.7	1613	101.2	1643	106.7	1673	112.4	1702	118.1	1763	130.0	1826	142.8	1890	156.4	1955	170.6	2020	185.2
38750	4968	1601	99.2	1632	104.8	1661	110.5	1691	116.2	1720	121.9	1778	133.9	1839	146.7	1902	160.2	1966	174.5	2029	189.2
39500	5064	1620	102.8	1651	108.6	1680	114.3	1709	120.1	1737	125.9	1795	137.9	1854	150.7	1915	164.2	1977	178.5	2039	193.3
40250	5160	1640	106.5	1670	112.4	1699	118.3	1727	124.1	1755	130.0	1811	142.1	1869	154.9	1928	168.4	1988	182.6	2050	197.5
41000	5256	1659	110.3	1689	116.4	1718	122.3	1746	128.3	1773	134.3	1829	146.5	1884	159.2	1942	172.7	2001	187.0	2061	201.9
41750	5353	1678	114.1	1708	120.4	1736	126.5	1764	132.5	1792	138.6	1846	150.9	1900	163.7	1956	177.2	2014	191.4	2072	206.3
42500	5449	1697	118.1	1727	124.5	1756	130.7	1783	136.9	1810	143.1	1864	155.5	1917	168.4	1971	181.8	2027	196.1	2084	211.0
43250	5545	1716	122.1	1746	128.6	1775	135.1	1802	141.4	1829	147.6	1882	160.3	1934	173.2	1987	186.6	2041	200.9	2097	215.8
44000	5641	1735	126.2	1765	132.9	1794	139.5	1821	145.9	1848	152.3	1900	165.1	1951	178.2	2003	191.7	2056	205.8	2110	220.7
44750	5737	1755	130.4	1784	137.2	1813	144.0	1840	150.6	1867	157.1	1918	170.1	1969	183.3	2020	196.8	2071	211.0	2124	225.9
45500	5833	1774	134.7	1803	141.7	1832	148.6	1859	155.4</												

CHICAGO BLOWER BACKWARD INCLINED FAN Max. RPM CLASS IV 2088

SIZE 40-1/4

43-7/16 In. Wheel Diameter
9.48 Sq. Ft. Outlet Area

Peak BHP = 39.49(RPM ÷ 1000)³
Tip Speed (fpm) = 11.37 x RPM

CFM	OV FPM	10" SP		11" SP		12" SP		13" SP		14" SP		16" SP		18" SP		20" SP		22" SP		24" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
37500	3956	1278	81.3	1313	87.4	1348	93.8	1384	100.5	1420	107.4	1492	121.7	1559	136.1	1618	150.2	1678	164.9		
38250	4035	1290	83.8	1324	89.9	1358	96.3	1393	103.0	1428	110.0	1500	124.4	1567	139.1	1628	153.6	1685	168.2		
39000	4114	1303	86.5	1335	92.5	1368	98.9	1402	105.6	1437	112.6	1507	127.2	1575	142.2	1637	157.0	1693	171.7	1752	187.2
39750	4193	1316	89.2	1347	95.3	1379	101.7	1412	108.4	1446	115.3	1515	129.9	1583	145.2	1646	160.4	1703	175.4	1758	190.7
40500	4272	1329	92.0	1360	98.2	1391	104.5	1423	111.2	1456	118.2	1523	132.8	1590	148.2	1654	163.8	1712	179.1	1766	194.4
41250	4351	1342	95.0	1372	101.1	1403	107.5	1434	114.2	1466	121.1	1531	135.8	1597	151.3	1662	167.1	1721	182.9	1775	198.4
42000	4430	1356	98.0	1385	104.2	1415	110.6	1445	117.2	1476	124.2	1540	138.8	1605	154.4	1669	170.5	1730	186.6	1784	202.4
42750	4509	1369	101.0	1398	107.3	1428	113.8	1457	120.4	1487	127.3	1549	142.0	1613	157.6	1677	173.8	1738	190.3	1794	206.6
43500	4589	1383	104.2	1412	110.6	1441	117.1	1469	123.7	1499	130.6	1559	145.3	1621	160.9	1684	177.2	1745	194.0	1802	210.6
44250	4668	1397	107.5	1425	113.9	1454	120.5	1482	127.1	1510	134.0	1569	148.7	1630	164.3	1691	180.7	1753	197.7	1811	214.7
45000	4747	1411	110.8	1439	117.3	1467	123.9	1495	130.7	1522	137.6	1580	152.2	1639	167.8	1699	184.3	1760	201.4	1819	218.7
45750	4826	1425	114.2	1453	120.8	1480	127.5	1508	134.3	1535	141.2	1591	155.8	1648	171.4	1708	187.9	1767	205.1	1826	222.7
46500	4905	1439	117.7	1467	124.4	1494	131.2	1521	138.0	1548	145.0	1602	159.6	1658	175.2	1716	191.7	1775	208.9	1833	226.7
47250	4984	1453	121.2	1481	128.1	1508	134.9	1534	141.9	1561	148.9	1614	163.5	1669	179.0	1725	195.5	1783	212.9	1841	230.8
48000	5063	1468	124.8	1495	131.8	1522	138.8	1548	145.8	1574	152.9	1626	167.5	1679	183.0	1735	199.5	1791	216.9	1848	234.9
48750	5142	1482	128.5	1509	135.6	1535	142.7	1561	149.8	1587	157.0	1638	171.7	1691	187.2	1744	203.7	1800	221.0	1856	239.1
49500	5222	1496	132.3	1523	139.5	1550	146.7	1575	153.9	1600	161.2	1651	175.9	1702	191.4	1755	207.9	1809	225.3	1864	243.4
50250	5301	1510	136.1	1537	143.5	1564	150.8	1589	158.1	1614	165.5	1664	180.4	1714	195.9	1765	212.3	1818	229.6	1872	247.8
51000	5380	1525	139.9	1552	147.5	1578	155.0	1603	162.4	1628	169.8	1677	184.9	1726	200.4	1776	216.8	1828	234.2	1881	252.3
51750	5459	1539	143.9	1566	151.7	1592	159.3	1617	166.8	1642	174.3	1690	189.5	1738	205.1	1787	221.5	1838	238.8	1890	257.0
52500	5538	1553	147.9	1580	155.8	1606	163.6	1631	171.3	1656	178.9	1703	194.2	1751	209.9	1799	226.3	1849	243.6	1899	261.8
53250	5617	1567	152.0	1594	160.1	1620	168.0	1645	175.8	1670	183.6	1717	199.1	1764	214.9	1811	231.3	1859	248.5	1909	266.7
54000	5696	1582	156.1	1609	164.4	1635	172.5	1660	180.4	1684	188.3	1731	204.0	1777	220.0	1823	236.4	1871	253.6	1919	271.8
54750	5775	1596	160.3	1623	168.8	1649	177.0	1674	185.2	1698	193.1	1744	209.0	1790	225.1	1836	241.6	1882	258.9	1930	277.0
55500	5854	1611	164.7	1637	173.2	1663	181.7	1688	189.9	1712	198.1	1758	214.2	1803	230.4	1848	247.0	1894	264.2	1940	282.3
56250	5934	1625	169.0	1652	177.8	1677	186.4	1702	194.8	1726	203.1	1772	219.4	1817	235.8	1861	252.6	1906	269.8	1951	287.9
57000	6013	1640	173.5	1666	182.4	1692	191.1	1716	199.7	1740	208.2	1786	224.8	1831	241.4	1874	258.2	1918	275.5	1963	293.5
57750	6092	1655	178.1	1681	187.0	1706	196.0	1731	204.7	1755	213.3	1800	230.2	1844	247.0	1888	264.0	1931	281.4	1974	299.3
58500	6171	1670	182.7	1695	191.8	1720	200.9	1745	209.8	1769	218.6	1814	235.8	1858	252.7	1901	269.9	1944	287.4	1986	305.4
59250	6250	1685	187.4	1710	196.7	1735	205.9	1759	215.0	1783	223.9	1829	241.4	1872	258.6	1914	275.9	1957	293.5	1999	311.5
60000	6329	1700	192.3	1724	201.6	1749	210.9	1774	220.2	1797	229.3	1843	247.1	1886	264.5	1928	282.0	1970	299.7	2011	317.9

CHICAGO BLOWER BACKWARD INCLINED FAN Max. RPM CLASS IV 1687

SIZE 44-1/2

48 In. Wheel Diameter
11.58 Sq. Ft. Outlet Area

Peak BHP = 65.07(RPM ÷ 1000)³
Tip Speed (fpm) = 12.57 x RPM

CFM	OV FPM	10" SP		11" SP		12" SP		13" SP		14" SP		16" SP		18" SP		20" SP		22" SP		24" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
40000	3454	1097	82.4	1135	89.8	1172	97.5	1208	105.2	1241	112.8	1302	127.9								
41000	3541	1106	84.9	1142	92.4	1179	100.2	1215	108.1	1249	115.9	1310	131.4	1372	147.7						
42000	3627	1115	87.7	1151	95.2	1187	103.0	1223	111.0	1257	119.1	1320	135.0	1377	151.1						
43000	3713	1125	90.5	1160	98.0	1195	105.8	1230	113.9	1265	122.2	1329	138.7	1385	154.9	1445	172.3				
44000	3800	1136	93.5	1169	101.0	1203	108.8	1237	117.0	1272	125.3	1337	142.3	1395	158.9	1450	175.9				
45000	3886	1147	96.6	1179	104.1	1212	111.9	1245	120.1	1279	128.5	1345	145.8	1404	163.0	1458	180.0				
46000	3972	1159	99.9	1190	107.4	1222	115.2	1254	123.4	1287	131.8	1352	149.4	1413	167.0	1466	184.4	1520	202.2		
47000	4059	1171	103.4	1201	110.8	1232	118.6	1263	126.8	1295	135.3	1359	153.0	1421	171.1	1476	188.9	1527	206.7		
48000	4145	1184	106.9	1213	114.4	1242	122.2	1273	130.3	1304	138.8	1367	156.7	1428	175.1	1485	193.4	1536	211.5	1587	230.2
49000	4231	1197	110.7	1225	118.1	1254	125.9	1283	134.0	1313	142.5	1374	160.4	1436	179.1	1493	198.0	1545	216.4	1594	235.1
50000	4318	1210	114.5	1237	122.0	1265	129.8	1294	137.9	1323	146.4	1382	164.3	1443	183.2	1501	202.4	1554	221.5	1603	240.3
51000	4404	1223	118.5	1250	126.0	1277	133.8	1305	142.0	1333	150.4	1391	168.3	1450	187.3	1509	206.9	1563	226.4	1612	245.7
52000	4491	1236	122.5	1263	130.2	1289	138.0	1316	146.1	1344	154.6	1400	172.5	1458	191.5	1516	211.3	1571	231.4	1621	251.1
53000	4577	1250	126.7	1276	134.5	1302	142.4	1328	150.5	1355	159.0	1410	176.8	1466	195.9	1523	215.9	1579	236.3	1630	256.6
54000	4663	1264	131.1	1289	138.9	1315	146.9	1341	155.1	1366	163.5	1420	181.4	1474	200.4	1530	220.5	1586	241.2	1638	262.0
55000	4750	1278	135.5	1303	143.5	1328	151.6	1353	159.8	1378	168.2	1430	186.1	1484	205.1	1538	225.2	1593	246.1	1646	267.3
56000	4836	1291	140.0	1317	148.2	1341	156.4	1366	164.7	1391	173.1	1441	190.9	1493	210.0	1546	230.1	1600	251.1	1653	272.7
57000	4922	1305	144.7	1330	153.0	1355	161.3	1379	169.7	1403	178.2	1452	196.0	1503	215.0	1555	235.1	1608	256.3	1661	278.0
58000	5009	1320	149.4	1344	157.9	1369	166.3	1392	174.8	1416	183.4	1464	201.2	1513	220.2	1564	240.4	1616	261.5	1668	283.5
59000	5095	1334	154.3	1358	162.9	1382	171.5	1406	180.1	1429	188.8	1476	206.7	1524	225.6	1573	245.7	1624	266.9	1675	289.0
60000	5181	1348	159.3	1372	168.1	1396	176.8	1419	185.5	1442	194.3	1488	212.3	1535	231.2	1583	251.3	1633	272.5	1683	294.6
61000	5268	1362	164.3	1386	173.3	1410	182.2	1433	191.1	1456	199.9	1501	218.1	1547	237.0	1594	257.1	1642	278.3		
62000	5354	1376	169.4	1400	178.7	1424	187.7	1447	196.												

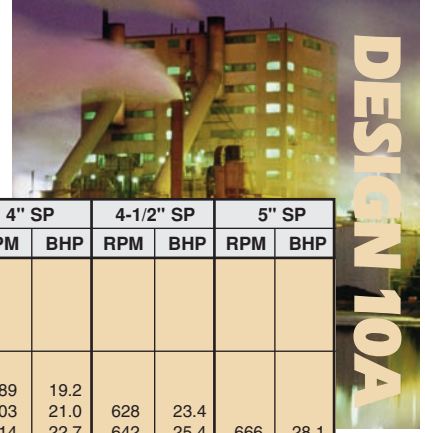
CHICAGO BLOWER BACKWARD INCLINED FAN

Max. RPM CLASS II 925
 Max. RPM CLASS III 1165
 Max. RPM CLASS IV 1675

SIZE 49

52-7/8 In. Wheel Diameter
 14.05 Sq. Ft. Outlet Area

Peak BHP = 105.54(RPM÷1000)³
 Tip Speed (fpm) = 13.84 x RPM



DESIGN 10A

CFM	OV FPM	1/2" SP		1" SP		1-1/2" SP		2" SP		2-1/2" SP		3" SP		3-1/2" SP		4" SP		4-1/2" SP		5" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
14000	996	250	1.6	307	2.8																
16000	1139	271	2.1	319	3.3	369	4.8														
18000	1281	292	2.6	336	4.0	381	5.5	423	7.2												
20000	1423	314	3.2	355	4.7	394	6.3	435	8.1	472	10.0										
22000	1566	337	3.9	376	5.6	411	7.2	447	9.1	485	11.2	518	13.3	549	15.4						
24000	1708	360	4.8	397	6.6	430	8.4	462	10.2	496	12.3	531	14.6	561	16.9	589	19.2				
26000	1851	385	5.7	418	7.7	451	9.7	480	11.6	510	13.7	542	16.0	573	18.5	603	21.0	628	23.4		
28000	1993	411	6.8	440	8.9	472	11.1	500	13.1	527	15.2	555	17.6	585	20.1	614	22.7	642	25.4	666	28.1
30000	2135	436	8.1	463	10.3	493	12.6	520	14.8	546	17.0	571	19.4	598	21.9	625	24.6	653	27.4	679	30.3
32000	2278	462	9.5	486	11.8	514	14.3	541	16.7	566	19.1	590	21.4	614	23.9	639	26.7	664	29.5	690	32.6
34000	2420	489	11.1	511	13.5	536	16.1	562	18.8	586	21.3	609	23.7	631	26.3	654	29.0	678	31.9	702	34.9
36000	2562	515	12.9	535	15.4	558	18.1	583	20.9	607	23.7	629	26.3	651	28.9	672	31.6	693	34.5	716	37.6
38000	2705	542	14.9	560	17.5	582	20.3	605	23.3	629	26.2	650	29.0	671	31.8	691	34.6	711	37.5	731	40.5
40000	2847	569	17.1	586	19.8	605	22.7	627	25.8	650	28.9	671	31.9	692	34.9	711	37.8	730	40.7	749	43.8
42000	2989	596	19.5	612	22.3	630	25.3	650	28.5	671	31.8	692	35.0	712	38.2	731	41.2	750	44.3	768	47.4
44000	3132	622	22.1	638	25.1	654	28.2	673	31.5	693	34.9	714	38.3	734	41.7	752	44.9	770	48.1	787	51.3
46000	3274	649	25.0	664	28.0	679	31.3	697	34.7	716	38.2	735	41.8	755	45.3	773	48.8	791	52.2	808	55.5
48000	3416	676	28.1	690	31.3	705	34.6	721	38.1	739	41.8	757	45.5	776	49.2	794	52.9	812	56.5	829	60.0
50000	3559	703	31.5	717	34.8	731	38.2	746	41.8	762	45.6	779	49.4	797	53.3	815	57.2	833	61.0	849	64.7
52000	3701	731	35.1	743	38.6	756	42.1	771	45.8	786	49.6	802	53.6	819	57.6	837	61.7	854	65.7	871	69.6
54000	3843	758	39.0	770	42.6	782	46.3	796	50.1	810	54.0	826	58.1	842	62.3	858	66.5	875	70.6	892	74.8
56000	3986	785	43.3	797	47.0	809	50.7	821	54.7	835	58.7	849	62.8	865	67.1	881	71.5	897	75.8	913	80.2
58000	4128	812	47.8	823	51.6	835	55.5	847	59.5	860	63.6	873	67.9	888	72.3	903	76.8	919	81.3	934	85.8
60000	4270	840	52.7	850	56.6	861	60.6	873	64.7	885	69.0	898	73.3	912	77.8	926	82.4	941	87.1	956	91.7
CFM	OV FPM	5-1/2" SP		6" SP		7" SP		8" SP		9" SP		10" SP		11" SP		12" SP		13" SP		14" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
28000	1993	690	30.8																		
30000	2135	703	33.2	725	36.0																
32000	2278	716	35.6	739	38.7	781	44.8														
34000	2420	727	38.1	751	41.4	794	47.9	834	54.4												
36000	2562	738	40.8	762	44.1	807	51.0	847	57.9	884	64.8										
38000	2705	752	43.7	774	47.1	818	54.2	860	61.5	897	68.7	932	75.9								
40000	2847	768	47.0	788	50.3	829	57.5	871	65.0	910	72.7	945	80.3	978	87.9						
42000	2989	786	50.6	804	53.9	843	61.1	882	68.7	921	76.8	958	84.8	991	92.7	1023	100.8	1058	109.4		
44000	3132	805	54.6	822	57.9	858	65.0	894	72.7	932	80.9	970	89.3	1005	97.7	1036	106.0	1067	114.4	1099	123.2
46000	3274	824	58.9	841	62.3	874	69.4	909	77.0	944	85.2	980	93.8	1016	102.7	1050	111.5	1080	120.2	1109	128.9
48000	3416	845	63.5	861	67.0	892	74.2	925	81.8	958	90.0	992	98.6	1027	107.6	1061	116.8	1093	126.1	1123	135.1
50000	3559	865	68.3	881	72.0	911	79.3	942	87.0	973	95.1	1006	103.7	1039	112.8	1072	122.2	1105	131.9	1136	141.5
52000	3701	886	73.5	902	77.2	931	84.8	960	92.6	990	100.7	1020	109.3	1052	118.4	1083	127.9	1115	137.7	1147	147.7
54000	3843	907	78.8	922	82.8	951	90.7	980	98.6	1008	106.7	1036	115.3	1066	124.4	1096	133.9	1127	143.8	1158	154.0
56000	3986	928	84.5	943	88.6	972	96.8	999	105.0	1027	113.3	1054	121.9	1082	130.9	1110	140.4	1140	150.3	1169	160.6
58000	4128	950	90.3	965	94.7	993	103.3	1020	111.7	1046	120.2	1072	128.9	1099	137.9	1126	147.4	1154	157.3	1182	167.6
60000	4270	971	96.4	986	101.0	1014	110.0	1041	118.8	1066	127.5	1092	136.3	1117	145.4	1143	154.8	1169	164.7	1196	175.0
62000	4413	992	102.8	1007	107.6	1035	117.0	1061	126.1	1087	135.2	1111	144.2	1136	153.4	1160	162.9	1185	172.7	1211	183.0
64000	4555	1014	109.4	1028	114.4	1056	124.3	1082	133.8	1107	143.2	1132	152.5	1155	161.9	1179	171.4	1203	181.3	1227	191.5
66000	4698	1036	116.4	1050	121.6	1077	131.8	1104	141.8	1128	151.5	1152	161.1	1175	170.7	1198	180.5	1221	190.4	1245	200.6
68000	4840	1059	123.8	1072	129.1	1099	139.6	1125	150.1	1149	160.2	1173	170.2	1196	180.0	1218	190.0	1241	200.0	1263	210.3
CFM	OV FPM	15" SP		16" SP		17" SP		18" SP		19" SP		20" SP		21" SP		22" SP		23" SP		24" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
52000	3701	1177	157.7	1205	167.6	1231	177.4	1257	187.2	1283	197.5										
54000	3843	1188	164.4	1217	174.8	1245	185.1	1270	195.2	1295	205.5	1319	215.9	1346	226.8						
56000	3986	1199	171.2	1228	181.9	1257	192.7	1284	203.4	1309	214.0	1333	224.5	1356	235.2	1380	246.2	1407	257.9		
58000	4128	1210	178.2	1239	189.2	1268	200.3	1295	211.5	1322	222.6	1346	233.6	1370	244.5	1393	255.5	1416	266.6	1440	278.3
60000	4270	1223	185.7	1251	196.7	1279	208.0	1306	219.5	1333	231.1	1359	242.6	1383	254.1	1406	265.3	1429	276.6	1451	288.1
62000	4413	1237	193.7	1263	204.7	1290	216.1	1317	227.8	1344	239.6	1370	251.6	1395	263.5	1420	275.3	1442	287.1	1464	298.7
64000	4555	1252	202.2	1277	213.2	1303	224.6	1329	236.3	1355	248.3	1381	260.5	1406	272.9	1431	285.2	1455	297.5	1478	309.6
66000	4698	1268	211.3	1292	222.3	1317	233.7	1342	245.4	1367	257.5	1392	269.8	1417	282.3	1442	295.0	1467	307.7	1490	320.4
68000	4840	1286	220.9	1309	231.9	1332	243.3	1356	255.0	1380	267.1	1404	279.5	1429	292.1	1453	309.6	1477	318.0	1501	331.1
70000	4982	1304	231.2	1326	242.1	1348	253.5	1371	265.2	1394	277.3	1417	289.7	1441	302.4	1465	315.3	1488	328.5	1512	341.9
72000	5125	1322	242.1	1344	253.0	1365	264.3	1387	276.0	1409	288.1	1431	300.4	1454	313.2	1477	326.2	1500	339.4	1523	352.9
74000	5267	1342	253.4	1362	264.5	1383	275.8	1404	287.4	1425	299.5	1447	311.9	1468	324.6	1490	337.6	1513	350.9	1535	364.5
76000	5409	1362	265.3	1382	276.6	1402	288.0	1422	299.6	1442	311.5	1463	323.9	1484	336.6	1505	349.6	1526	362.9	1548	376.5
78000	5552	1382	277.7	1401	289.1	1421	30														

CHICAGO BLOWER BACKWARD INCLINED FAN

Max. RPM CLASS II 836
Max. RPM CLASS III 1052

SIZE 54-1/4

58-1/2 In. Wheel Diameter
17.24 Sq. Ft. Outlet Area

Peak BHP = 174.96(RPM ÷ 1000)³
Tip Speed (fpm) = 15.32 x RPM

CFM	OV FPM	1/2" SP		1" SP		1-1/2" SP		2" SP		2-1/2" SP		3" SP		3-1/2" SP		4" SP		4-1/2" SP		5" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
20000	1160	248	2.7	291	4.2	336	6.1														
23000	1334	271	3.5	310	5.2	348	7.1	387	9.3	420	11.5										
26000	1508	296	4.5	333	6.4	365	8.4	400	10.7	434	13.1	464	15.6								
29000	1682	322	5.7	356	7.9	386	10.0	415	12.3	447	14.9	478	17.6	505	20.4	531	23.2				
32000	1856	350	7.1	379	9.5	409	11.9	435	14.3	462	16.8	490	19.7	519	22.7	545	25.8	569	28.8	593	32.0
35000	2030	378	8.8	404	11.4	432	14.1	457	16.7	481	19.3	506	22.1	532	25.2	558	28.5	583	31.9	606	35.2
38000	2204	407	10.8	429	13.6	455	16.5	480	19.3	503	22.1	525	25.0	548	28.0	571	31.4	595	34.9	619	38.5
41000	2378	436	13.1	456	16.0	479	19.2	503	22.3	525	25.3	546	28.3	566	31.4	588	34.7	609	38.3	632	42.0
44000	2552	465	15.7	483	18.8	504	22.1	527	25.5	548	28.9	568	32.1	588	35.3	607	38.6	626	42.1	646	45.9
47000	2726	495	18.7	511	22.0	530	25.4	551	29.1	572	32.7	591	36.2	610	39.6	628	43.1	646	46.6	664	50.3
50000	2900	524	22.1	539	25.5	556	29.1	575	32.9	595	36.8	615	40.7	633	44.3	650	48.0	667	51.6	684	55.4
53000	3074	554	25.9	568	29.4	583	33.2	601	37.2	619	41.3	638	45.4	656	49.4	673	53.3	689	57.2	705	61.1
56000	3248	584	30.1	597	33.8	611	37.8	627	41.9	644	46.2	662	50.6	680	54.9	696	59.1	712	63.2	728	67.3
59000	3422	614	34.7	626	38.7	639	42.8	654	47.0	670	51.5	686	56.1	703	60.7	720	65.2	736	69.6	751	73.9
62000	3596	644	39.9	655	44.0	668	48.3	681	52.7	696	57.3	711	62.1	727	66.9	743	71.7	759	76.5	774	81.1
65000	3770	674	45.5	685	49.8	696	54.3	709	58.8	722	63.6	737	68.6	752	73.6	767	78.6	782	83.7	797	88.6
CFM	OV FPM	5-1/2" SP		6" SP		7" SP		8" SP		9" SP		10" SP		11" SP		12" SP		13" SP		14" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
38000	2204	642	42.2	662	45.8	702	53.2														
41000	2378	654	45.9	676	49.8	715	57.6	751	65.6												
44000	2552	667	49.8	688	53.9	729	62.3	765	70.7	799	79.1										
47000	2726	683	54.2	702	58.3	741	67.1	779	76.1	813	85.0	844	93.9								
50000	2900	701	59.3	718	63.4	754	72.1	791	81.5	827	91.1	859	100.6	889	110.0	920	120.0				
53000	3074	721	65.0	737	69.1	770	77.8	804	87.2	839	97.2	873	107.4	904	117.5	932	127.5	960	137.7		
56000	3248	743	71.3	758	75.5	788	84.2	820	93.6	852	103.6	885	114.1	917	124.9	947	135.6	975	146.1	1001	156.8
59000	3422	765	78.2	780	82.5	808	91.3	837	100.7	867	110.7	898	121.3	929	132.3	960	143.6	989	155.0	1016	166.2
62000	3596	788	85.6	802	90.1	829	99.2	856	108.6	884	118.5	913	129.1	942	140.2	972	151.8	1002	163.7	1030	175.6
65000	3770	811	93.5	825	98.2	851	107.7	877	117.3	903	127.2	930	137.9	957	148.9	985	160.5	1014	172.6	1042	185.0
68000	3944	835	101.8	848	106.8	874	116.7	899	126.6	924	136.8	949	147.3	974	158.3	1001	170.0	1027	182.1		
71000	4118	858	110.5	872	115.9	897	126.4	922	136.7	945	147.1	969	157.7	993	168.7	1018	180.3	1043	192.5		
74000	4292	882	119.7	895	125.4	921	136.5	945	147.3	968	158.1	990	169.0	1013	180.1	1036	191.6				
77000	4466	906	129.4	919	135.4	944	147.1	968	158.6	990	169.8	1013	181.0	1034							
80000	4640	930	139.6	942	145.9	967	158.3	991	170.3	1014	182.1	1035	193.7								
83000	4814	955	150.5	967	157.0	991	169.9	1014	182.6	1037	195.0										

CHICAGO BLOWER BACKWARD INCLINED FAN

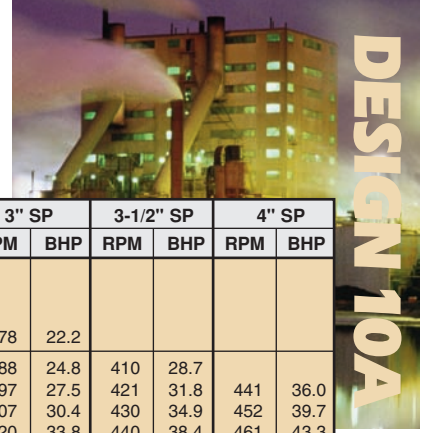
Max. RPM CLASS II 756
Max. RPM CLASS III 951

SIZE 60

64-3/4 In. Wheel Diameter
21.06 Sq. Ft. Outlet Area

Peak BHP = 290.64(RPM ÷ 1000)³
Tip Speed (fpm) = 16.95 x RPM

CFM	OV FPM	1/2" SP		1" SP		1-1/2" SP		2" SP		2-1/2" SP		3" SP		3-1/2" SP		4" SP		4-1/2" SP		5" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
24000	1140	221	3.1	261	5.0	302	7.3														
28000	1330	244	4.2	279	6.3	314	8.6	349	11.3	379	14.0										
32000	1519	269	5.5	301	8.0	331	10.4	362	13.1	393	16.2	419	19.2								
36000	1709	294	7.1	324	9.9	351	12.6	378	15.3	405	18.5	433	21.9	459	25.3	481	28.8				
40000	1899	322	9.1	348	12.2	374	15.2	397	18.1	421	21.2	446	24.7	471	28.5	495	32.3	517	36.1	537	40.0
44000	2089	349	11.5	372	14.7	397	18.2	419	21.4	440	24.6	462	28.1	484	31.9	508	35.9	530	40.2	552	44.4
48000	2279	378	14.3	397	17.7	420	21.5	442	25.1	462	28.6	481	32.2	501	35.9	522	40.0	543	44.3	564	48.9
52000	2469	406	17.5	424	21.2	444	25.2	465	29.2	485	33.1	503	36.9	521	40.7	539	44.7	558	49.1	577	53.7
56000	2659	435	21.3	451	25.2	469	29.4	488	33.7	508	38.0	525	42.1	542	46.2	559	50.4	576	54.7	593	59.2
60000	2849	465	25.6	478	29.7	494	34.1	512	38.7	531	43.4	548	47.9	565	52.3	581	56.7	596	61.1	612	65.7
64000	3039	494	30.5	507	34.8	521	39.4	537	44.2	554	49.2	571	54.2	588	59.0	603	63.7	618	68.3	632	73.0
68000	3229	523	36.0	535	40.5	548	45.3	563	50.4	578	55.6	595	60.9	611	66.1	626	71.2	640	76.2	654	81.1
72000	3419	552	42.1	564	46.9	576	52.0	589	57.2	603	62.7	618	68.2	634	73.8	649	79.4	663	84.7	677	90.0
76000	3609	582	49.0	593	54.0	604	59.3	616	64.7	629	70.4	643	76.2	657	82.1	672	88.0	686	93.8	700	99.5
80000	3799	612	56.6	622	61.9	632	67.3	643	73.0	655	78.8	668	84.9	681	91.1	695	97.3	709	103.5	722	109.6
CFM	OV FPM	5-1/2" SP		6" SP		7" SP		8" SP		9" SP		10" SP		11" SP		12" SP		13" SP		14" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
45000	2137	574	49.8	592	54.0																
49000	2327	587	54.7	607	59.4	641	68.7														
53000	2517	600	59.8	619	64.8	656	75.0	688	85.0	719	95.4										
57000	2707	615	65.6	632	70.6	668	81.3	702	92.2	732	103.0	761	113.9								
61000	2896	632	72.2	648	77.2	681	88.0	714	99.4	746	111.1	776	122.7	802	134.2	830	146.5				
65000	3086	652	79.8	666	84.8	696	95.5	727	107.0	758	119.2	789	131.7	817	144.1	843	156.4	868	168.9		
69000	3276	673	88.3	687	93.4	714	104.1	742	115.6	771	127.9	801	140.7	830	154.0	857	167.2	882	180.3	906	193.3
73000	3466	695	97.6	708	102.9	734	113.8	760	125.2	786	137.5	814	150.4	842	164.0	870	178.0	896	192.0	921	205.9
77000	3656	718	107.6	731	113.2	755	124.4	779	136.0	804	148.2	829	161.1	855	174.8	882	189.0	908	203.6	934	218.5
81000	3846	741	118.3	753	124.2	777	136.0	800	147.9	823	160.2	847	173.0	871	186.6	895	200.9	920	215.8	946	231.1
85000	4036	764	129.6	776	136.0	800	148.4	822	160.8	844	173.3	866	186.3	888	199.8	911	214.0	934	228.9		
89000																					



CHICAGO BLOWER BACKWARD INCLINED FAN

Max. RPM CLASS II 687

SIZE 66

71-3/16 In. Wheel Diameter
25.49 Sq. Ft. Outlet Area

Peak BHP = 466.86(RPM÷1000)³
Tip Speed (fpm) = 18.64 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
25000	981	162	2.0	184	2.9	205	3.9	227	5.1												
29000	1138	181	2.7	201	3.8	219	4.9	237	6.0	274	8.8										
33000	1295	201	3.6	218	4.8	235	6.1	251	7.3	284	10.1	316	13.3								
37000	1452	221	4.7	236	6.1	253	7.5	267	8.9	295	11.7	325	15.1	353	18.6	378	22.2				
41000	1608	243	6.1	255	7.6	270	9.2	284	10.7	310	13.7	335	17.1	363	20.9	388	24.8	410	28.7		
45000	1765	264	7.7	275	9.3	288	11.0	301	12.8	326	16.1	349	19.5	373	23.3	397	27.5	421	31.8	441	36.0
49000	1922	286	9.7	296	11.4	307	13.2	319	15.1	343	18.8	364	22.4	385	26.2	407	30.4	430	34.9	452	39.7
53000	2079	308	12.0	317	13.8	327	15.7	337	17.7	360	21.8	381	25.7	400	29.6	420	33.8	440	38.4	461	43.3
57000	2236	330	14.6	338	16.5	347	18.5	356	20.6	377	25.1	398	29.3	416	33.5	434	37.7	452	42.3	471	47.2
61000	2393	352	17.6	360	19.6	368	21.7	376	24.0	395	28.6	415	33.3	433	37.8	450	42.3	467	46.9	484	51.8
65000	2550	375	21.0	381	23.1	388	25.4	396	27.7	414	32.6	432	37.7	450	42.6	466	47.3	482	52.1	498	57.0
69000	2707	397	24.8	403	27.1	410	29.4	417	31.9	433	37.0	450	42.3	467	47.6	484	52.8	499	57.8	514	62.8
73000	2864	419	29.1	425	31.5	431	33.9	438	36.5	452	41.8	468	47.4	485	53.1	501	58.6	516	64.0	530	69.3
77000	3021	441	33.9	447	36.4	453	38.9	459	41.6	472	47.1	487	52.9	502	58.9	518	64.9	533	70.7	547	76.3
81000	3178	464	39.1	469	41.8	475	44.5	480	47.2	492	52.9	506	59.0	520	65.2	535	71.5	550	77.7	564	83.8
85000	3335	486	44.9	491	47.7	496	50.5	502	53.4	513	59.4	525	65.5	539	72.0	553	78.6	567	85.2	581	91.7
CFM	OV FPM	4-1/2" SP		5" SP		5-1/2" SP		6" SP		6-1/2" SP		7" SP		7-1/2" SP		8" SP		8-1/2" SP		9" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
53000	2079	482	48.4	501	53.4	518	58.4	535	63.5												
57000	2236	491	52.5	511	57.9	529	63.4	546	68.8	562	74.2	578	79.7								
61000	2393	502	57.0	520	62.5	538	68.3	556	74.2	573	80.0	588	85.8	603	91.5	618	97.5				
65000	2550	514	62.2	531	67.7	548	73.5	565	79.6	582	85.8	599	92.1	614	98.3	628	104.4	642	110.6	656	116.9
69000	2707	528	68.1	544	73.6	559	79.4	575	85.5	591	91.8	608	98.4	624	105.0	639	111.6	653	118.2	666	124.7
73000	2864	544	74.7	558	80.2	572	86.0	587	92.1	602	98.4	617	105.0	632	111.8	648	118.8	663	125.8	677	132.8
77000	3021	560	81.9	574	87.5	587	93.4	600	99.4	614	105.7	628	112.3	643	119.2	657	126.3	672	133.5	686	140.9
81000	3178	577	89.7	590	95.5	603	101.5	615	107.6	628	113.9	641	120.5	654	127.3	668	134.4	682	141.7		
85000	3335	594	98.0	607	104.1	619	110.3	631	116.6	643	123.0	655	129.5	667	136.3	680	143.4				
89000	3492	612	106.8	624	113.3	636	119.8	647	126.3	659	132.8	670	139.5	682	146.3						
93000	3648	629	116.1	641	123.0	653	129.9	664	136.6	675	143.4	686	150.2								
97000	3805	646	125.8	658	133.2	670	140.5	681	147.6												

CHICAGO BLOWER BACKWARD INCLINED FAN

Max. RPM CLASS II 621

SIZE 73

78-3/4 In. Wheel Diameter
31.19 Sq. Ft. Outlet Area

Peak BHP = 773.41(RPM÷1000)³
Tip Speed (fpm) = 20.62 x RPM

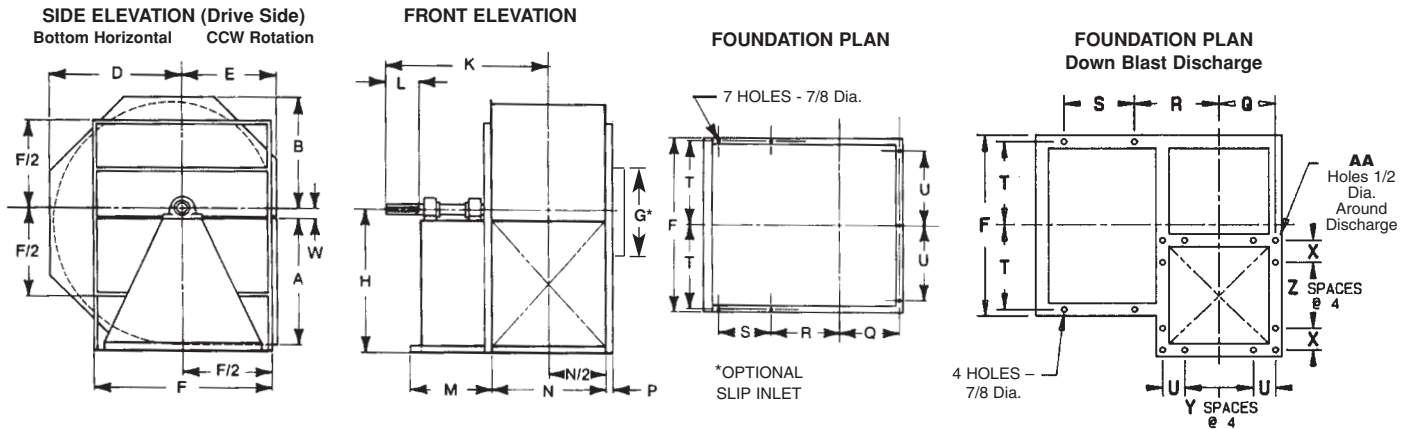
CFM	OV FPM	1/4" SP		1/2" SP		3/4" SP		1" SP		1-1/2" SP		2" SP		2-1/2" SP		3" SP		3-1/2" SP		4" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
34000	1090	158	3.0	177	4.3	194	5.5	211	7.0	245	10.2										
39000	1250	176	4.0	193	5.5	208	7.0	223	8.5	254	11.9	282	15.6								
44000	1411	195	5.4	209	7.0	224	8.7	238	10.3	264	13.8	292	17.9	316	22.1						
49000	1571	215	7.0	227	8.8	240	10.7	253	12.5	276	16.2	301	20.3	326	24.9	348	29.5	369	34.3		
54000	1731	235	9.0	245	10.9	257	13.0	269	15.1	291	19.0	312	23.2	335	27.8	357	32.9	379	38.1	397	43.2
59000	1892	255	11.4	264	13.4	274	15.6	285	17.9	307	22.3	326	26.6	346	31.3	366	36.4	387	42.0	407	47.7
64000	2052	275	14.1	283	16.3	292	18.6	302	21.1	323	26.0	341	30.7	359	35.4	377	40.6	396	46.2	415	52.2
69000	2212	295	17.3	303	19.6	311	22.1	320	24.7	339	30.0	357	35.2	374	40.2	390	45.4	407	51.0	425	57.0
74000	2373	316	21.0	323	23.5	330	26.1	338	28.7	355	34.4	373	40.1	389	45.6	405	51.0	420	56.6	436	62.6
79000	2533	336	25.2	343	27.8	349	30.5	356	33.3	372	39.3	389	45.5	405	51.4	420	57.2	434	63.0	449	69.0
84000	2693	357	29.9	363	32.7	369	35.5	375	38.5	390	44.8	405	51.3	421	57.7	436	63.9	450	70.0	463	76.2
89000	2853	377	35.2	383	38.1	389	41.1	394	44.2	407	50.7	422	57.6	437	64.5	452	71.2	465	77.8	478	84.2
94000	3014	398	41.1	403	44.2	408	47.4	414	50.6	426	57.3	439	64.5	453	71.8	468	79.0	481	86.1	494	92.9
99000	3174	419	47.7	424	50.9	429	54.2	434	57.6	445	64.6	457	72.0	470	79.6	484	87.3	497	94.9	509	102.3
104000	3334	439	55.0	444	58.4	449	61.8	454	65.3	464	72.6	475	80.2	487	88.1	500	96.2	513	104.3	525	112.2
109000	3495	460	63.0	464	66.5	469	70.1	473	73.7	483	81.2	493	89.1	505	97.4	517	105.8	529	114.2	541	122.7
CFM	OV FPM	4-1/2" SP		5" SP		5-1/2" SP		6" SP		6-1/2" SP		7" SP		7-1/2" SP		8" SP		8-1/2" SP		9" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
64000	2052	434	58.3	451	64.4	467	70.4	483	76.8												
69000	2212	443	63.4	460	70.0	477	76.6	492	83.1	506	89.7	522	96.6								
74000	2373	452	69.0	469	75.7	485	82.8	502	89.9	517	97.0	530	103.9	544	111.0	558	118.4				
79000	2533	463	75.3	479	82.1	494	89.3	510	96.7	525	104.2	540	111.8	554	119.4	567	126.8	579	134.3	592	142.1
84000	2693	476	82.6	490	89.4	505	96.5	519	103.9	534	111.7	549	119.7	563	127.8	577	135.8	590	143.8	602	151.7
89000	2853	491	90.8	504	97.6	517	104.6	530	112.1	543	119.9	557	127.9	571	136.3	585	144.8	599	153.3	611	161.9
94000	3014	506	99.8	518	106.7	530	113.8	542	121.2	555	129.0	567	137.0	580	145.4	594	154.1	607	162.9	620	171.9
99000	3174	521	109.5	533	116.7	544	124.0	556	131.4	567	139.1	579	147.2	591	155.6	603	164.2	616	173.1		
104000	3334	537	119.9	548	127.4	559	135.0	570	142.6	581	150.4	592	158.5	603	166.8	615	175.4				
109000	3495	553	130.9	564	138.9	575	146.8	586	154.7	596	162.7	606	170.9	617	179.2						
114000	3655	569	142.5	580	151.0	591	159.4	601	167.7	611	176.0	621	184.3								
119000	3815	585	154.7	596	163.8	607	172.7	617	181.4												

Performance shown is for installation type B - Free inlet, Ducted outlet.
Power ratings (BHP) do not include drive losses.

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

CHICAGO BLOWER BACKWARD INCLINED FAN

CLASS II - Arrangements 1 and 9

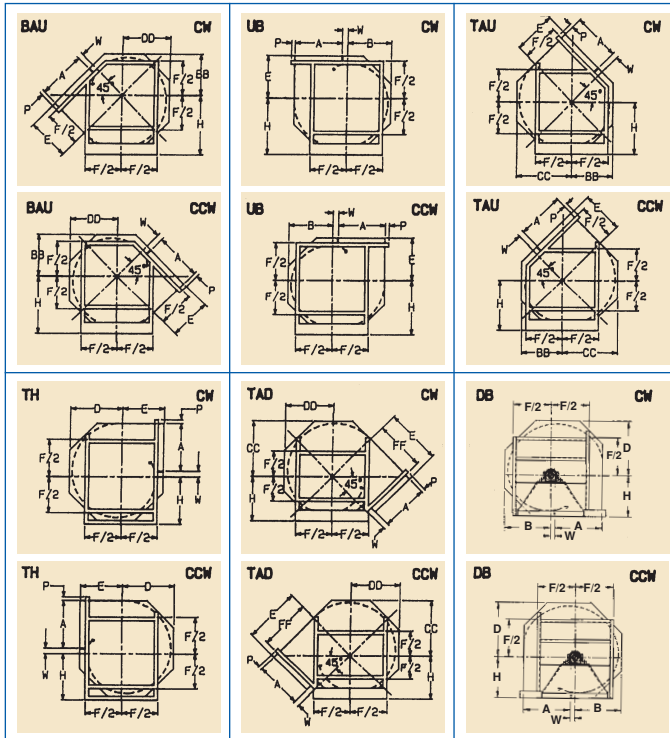


Arrangement 1 Shown - All Dimensions in Inches. Do Not Use for Construction Unless Certified.

Fan Size	Wheel Dia.	Shaft at Bearings	Keyway	A	B	D	E		F	G*	H							K	L
							BH, BAU UB, TAU TH	TAD only			BH	BAU	UB	TAU	TH	TAD	DB		
49	52-7/8	2-15/16	3/4 x 3/8	47-7/8	42-13/32	50-3/8	36-1/4	46-1/2	67-1/4	53-5/8	54-7/8	54-3/8	50-7/8	46-1/4	42-15/16	39	38-1/8	63	8
54-1/4	58-1/2	3-7/16	7/8 x 7/16	53	46-9/16	55-1/2	40	51-3/8	74-1/4	59-3/8	60-3/8	59-13/16	56	50-13/16	47-1/16	42-3/4	41-5/8	67	8
60	64-3/4	3-7/16	7/8 x 7/16	58-1/2	51-5/16	61-1/8	44-1/4	56-7/8	82	65-7/8	66-7/16	65-15/16	61-5/8	56	51-13/16	47-1/16	45-1/2	74-1/2	9
66	71-3/16	3-15/16	1 x 1/2	64-3/8	56-5/16	67-1/16	48-1/4	62	90-1/4	71-7/8	72-13/16	72-1/4	67-9/16	61-3/8	56-13/16	51-9/16	49-5/8	79	10
73	78-3/4	3-15/16	1 x 1/2	71-1/8	63-1/16	74-15/16	53	68-1/8	103-3/4	79-1/2	81-3/16	80-11/16	75-7/16	68-9/16	63-9/16	57-3/4	54-3/8	84	10

Fan Size	M	N	P	Q	R	S	T	U		W	X DB only	Y DB only	Z DB only	AA DB only	BB	CC	DD	FF	Min. Fan Sheave Dia.
								BH, BAU UB, TAU TH, TAD	DB only										
49	31-7/16	42-7/8	3	23-3/16	27-7/16	22-3/16	32-3/8	29-3/8	5-3/16	4	3-11/16	9	11	48	38-1/2	53-7/8	45-3/4	43-7/8	15
54-1/4	32-15/16	47-7/16	3	25-1/2	29-3/4	23-11/16	35-7/8	32-3/8	5-15/32	4-3/8	4-1/4	10	12	52	42-1/4	59-9/32	50-5/16	48-1/2	16
60	36-7/8	52-9/16	3	28	34-5/16	24-11/16	38-3/4	36-1/2	4-1/32	4-15/16	3	12	14	60	46-9/16	65-13/32	55-1/2	53-5/8	19.3
66	38-3/8	57-3/4	3	30-5/8	36-7/8	26-3/16	43-7/8	40-5/8	4-5/8	5-7/16	3-15/16	13	15	64	51-1/16	71-25/32	60-7/8	58-7/8	20.3
73	39-7/8	63-7/8	4	34-7/16	39-15/16	27-11/16	50-3/8	45-3/8	6-7/16	6-1/16	4-1/16	14	17	70	57-1/4	80-3/16	68-1/16	65	21.1

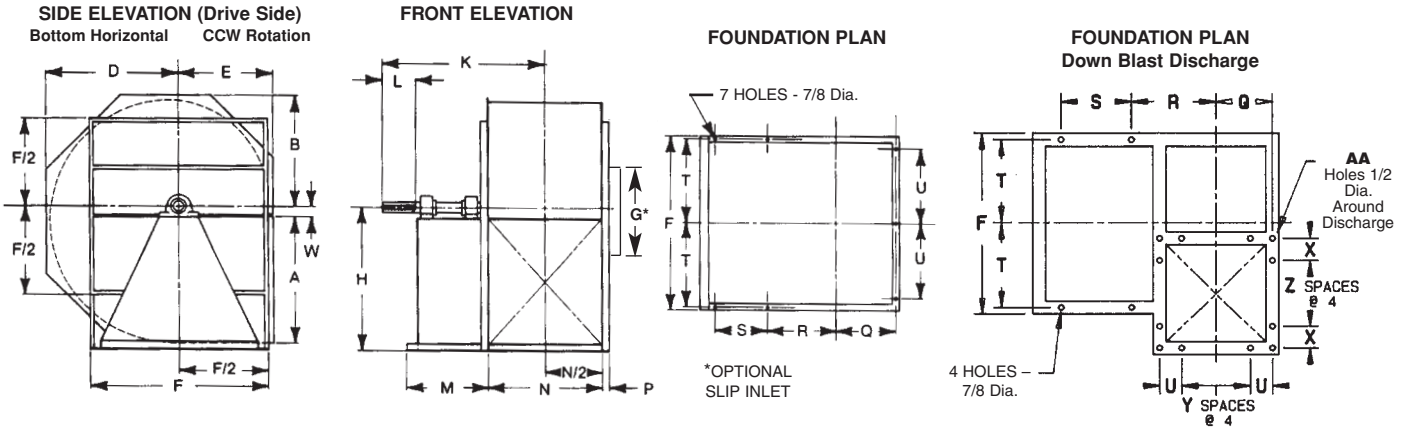
Positions of Discharge and Rotation as Viewed From the Drive Side



Arrangement 9 - Mean Drive Centers for Frames Shown

Fan Size	Motor Frame	BH	BAU	UB	TAU	TH	TAD	DB
49	56	36-7/8	36-7/8	35	33-1/8	31-7/8	30-3/8	30
	143-145	36-7/8	36-7/8	35	33-1/8	31-7/8	30-3/8	30
	182-184	37-1/4	37-1/4	35-3/8	33-3/8	32-1/4	30-7/8	30-3/8
	213-215	37-5/8	37-5/8	35-7/8	33-7/8	32-5/8	31-1/8	30-3/4
	254-256	38-1/8	38-1/8	36-1/4	34-1/4	33	31-3/8	31
	284-286	38-3/8	38-3/8	36-1/2	34-3/8	33-3/8	31-7/8	31-1/2
	324-326	38-7/8	38-7/8	37-1/8	35-1/8	33-7/8	32-3/8	32
	364-365	39-3/8	39-3/8	37-5/8	35-5/8	34-3/8	33	32-5/8
	404-405	40-5/8	40-5/8	38-7/8	36-7/8	35-5/8	34	33-5/8

CHICAGO BLOWER BACKWARD INCLINED FAN CLASS III - Arrangements 1 and 9

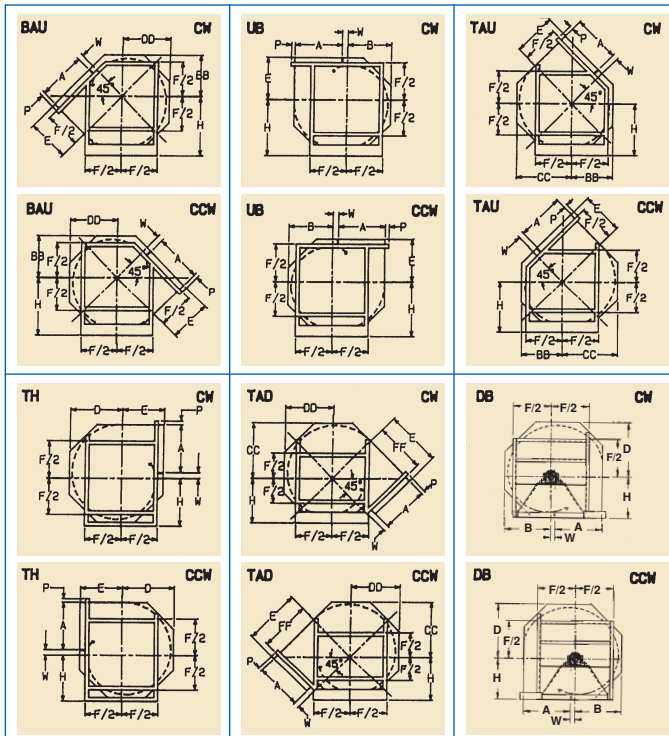


Arrangement 1 Shown - All Dimensions in Inches. Do Not Use for Construction Unless Certified.

Fan Size	Wheel Dia.	Shaft at Bearings	Keyway	A	B	D	E		F	G	H						K	L	
							BH, BAU UB, TAU TH	TAD only			BH	BAU	UB	TAU	TH	TAD			DB
49	52-7/8	3-3/16	3/4 x 3/8	47-7/8	42-13/32	50-3/8	36-1/4	46-1/2	67-1/4	53-5/8	54-7/8	54-3/8	50-7/8	46-1/4	42-15/16	39	38-1/8	64-1/4	9
54-1/4	58-1/2	3-7/16	7/8 x 7/16	53	46-9/16	55-1/2	40	51-3/8	74-1/4	59-3/8	60-3/8	59-13/16	56	50-13/16	47-1/16	42-3/4	41-5/8	66-3/4	9
60	64-3/4	3-11/16	7/8 x 7/16	58-9/16	51-5/16	61-1/8	44-1/4	56-7/8	82	65-7/8	66-1/2	65-15/16	61-5/8	56	51-13/16	47-1/16	45-1/2	74-1/2	9

Fan Size	M	N	P	Q	R	S	T	U		W	X	Y	Z	AA	BB	CC	DD	FF	Min. Fan Sheave Dia.
								BH, BAU UB, TAU TH, TAD	DB only		DB only	DB only	DB only						
49	35-3/4	43	3	23-1/4	27-7/16	28-3/4	32-3/8	29-3/8	5-1/4	4	3-11/16	9	11	48	38-1/2	53-7/8	45-3/4	43-7/8	12.5
54-1/4	35-7/8	47-9/16	3	25-17/32	29-9/32	28-7/8	35-7/8	32-3/8	5-17/32	4-3/8	4-1/4	10	12	52	42-1/4	59-9/32	50-5/16	48-1/2	13.9
60	39-7/8	52-11/16	3	28-3/32	35-3/32	28-5/8	39-3/4	36-1/2	4-3/32	4-15/16	3-1/32	12	14	60	46-9/16	65-13/32	55-1/2	53-5/8	15.3

Positions of Discharge and Rotation as Viewed from the Drive Side



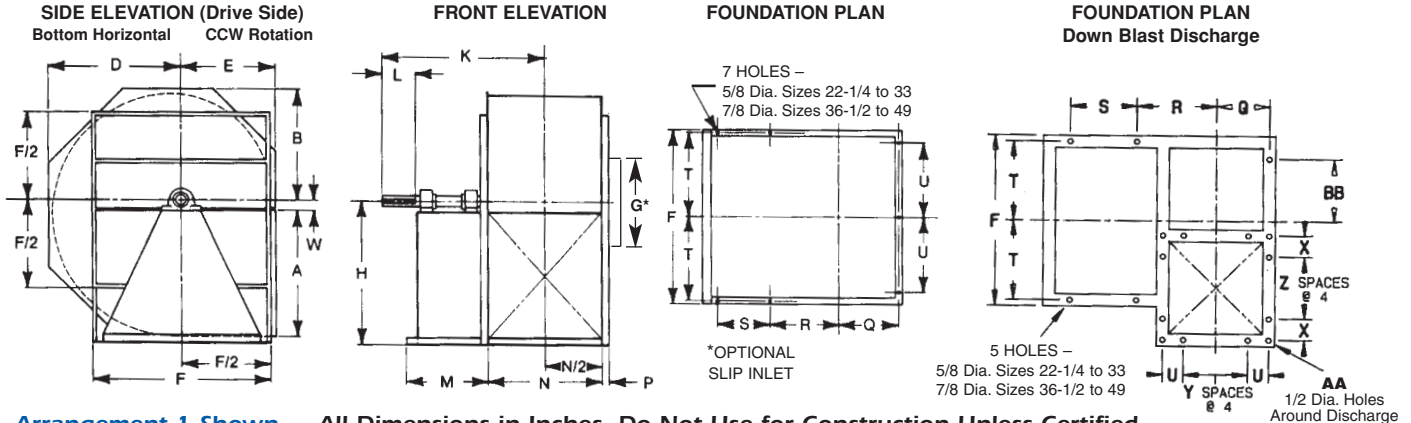
Arrangement 9 - Mean Drive Centers for Frames Shown

Fan Size	Motor Frame	BH	BAU	UB	TAU	TH	TAD	DB
49	56	36-7/8	36-7/8	35	33-1/8	31-7/8	30-3/8	30
	143-145	36-7/8	36-7/8	35	33-1/8	31-7/8	30-3/8	30
	182-184	37-1/4	37-1/4	35-3/8	33-3/8	32-1/4	30-7/8	30-3/8
	213-215	37-5/8	37-5/8	35-7/8	33-7/8	32-5/8	31-1/8	30-3/4
	254-256	38-1/8	38-1/8	36-1/4	34-1/4	33	31-3/8	31
	284-286	38-3/8	38-3/8	36-1/2	34-3/8	33-3/8	31-7/8	31-1/2
	324-326	38-7/8	38-7/8	37-1/8	35-1/8	33-7/8	32-3/8	32
	364-365	39-3/8	39-3/8	37-5/8	35-5/8	34-3/8	33	32-5/8
	404-405	40-5/8	40-5/8	38-7/8	36-7/8	35-5/8	34	33-5/8



CHICAGO BLOWER BACKWARD INCLINED FAN

CLASS IV - Arrangements 1 and 9

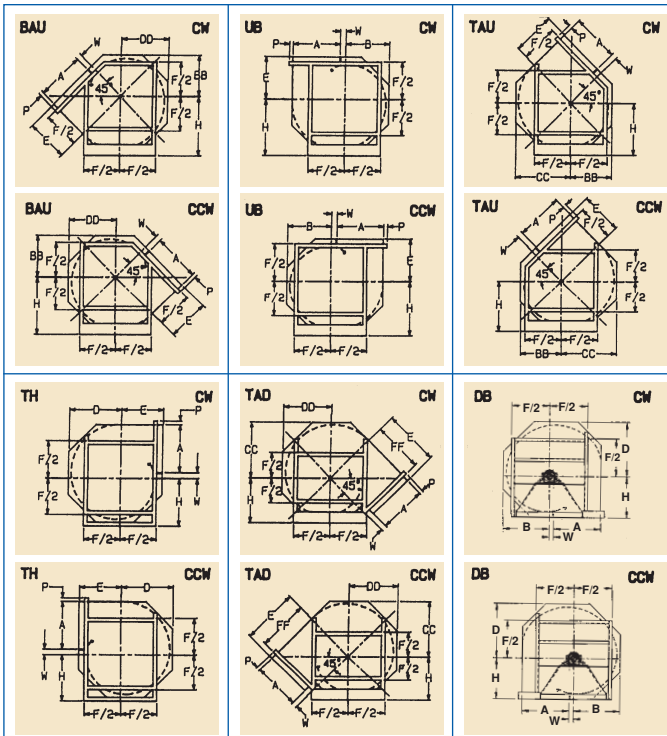


Arrangement 1 Shown - All Dimensions in Inches. Do Not Use for Construction Unless Certified.

Fan Size	Wheel Dia.	Shaft at Bearings	Keyway	E					H										
				A	B	D	BH, BAU UB, TAU TH	TAD only	F	G	BH	BAU	UB	TAU	TH	TAD	DB	K	L
22-1/4	24-1/4	2-3/16	1/2 x 1/4	21-7/8	19	22-11/16	18-1/4	24-1/4	33-1/4	24-9/16	26-5/8	25-1/8	23-1/4	21-1/8	20	19	20	37	6
24-1/2	26-7/16	2-3/16	1/2 x 1/4	24	21-3/4	25-3/4	19-1/2	26-3/4	35-3/4	28-1/2	27-3/4	26-1/4	26-1/4	25-1/6	22-1/4	22-3/8	22-3/8	40-1/4	7
27	29-1/8	2-7/16	5/8 x 5/16	26-1/2	23-7/8	28-1/4	22	30-1/8	39-7/16	30-9/16	31-3/16	30-3/8	28-3/4	26-9/16	24-3/8	24-7/32	24-7/32	43-3/4	8
30	32-3/8	2-7/16	5/8 x 5/16	29-1/8	26-13/16	31-11/16	23-1/2	31-3/8	42-5/8	33-9/16	34-13/16	34-5/16	32-3/16	29-3/8	27-5/16	25-5/16	25-5/16	47-3/4	8
33	35-9/16	2-15/16	3/4 x 3/8	32	29-7/32	34-3/8	25	33-1/4	46	36-9/16	38	37-1/2	35-1/8	32-1/16	29-3/4	27-1/8	27	51-3/8	8
36-1/2	39-3/8	2-15/16	3/4 x 3/8	35-21/32	32-3/32	38	27-1/2	35-1/4	50-1/4	41-9/16	41-21/32	41-3/16	38-1/2	35-1/8	32-5/8	29-11/16	29-1/8	51-5/8	8
40-1/4	43-7/16	3-7/16	7/8 x 7/16	39-9/32	35-5/32	41-11/16	30-1/4	38-3/4	55-1/4	44-9/16	45-19/32	45-1/8	42-1/4	38-7/16	35-11/16	32-7/16	31-5/8	57-3/8	8
44-1/2	48	3-11/16	7/8 x 7/16	43-13/32	38-21/32	45-7/8	33	42-1/4	61	49-9/16	50-3/32	49-9/16	46-3/8	42-3/16	39-3/16	35-5/8	34-1/2	61-1/8	8
49	52-7/8	3-15/16	1 x 1/2	47-29/32	42-13/32	50-3/8	36-1/4	46-1/2	67-1/4	53-5/8	54-29/32	54-3/8	50-7/8	46-1/4	42-15/16	39	38-1/8	69-3/8	10

Fan Size	M	N	P	Q	R	S	T	U		W	X	Y	Z	AA	BB		CC	DD	FF	Min. Fan Sheave Dia.
								BH, BAU UB, TAU TH, TAD	DB only						DB only	DB only				
22-1/4	22-3/4	19-5/8	2-1/2	11-3/16	14-9/16	16-5/8	15-1/2	12-5/8	3-3/16	1-3/4	4-5/16	4	4	24	17-1/4	12-5/8	24-1/8	20-9/16	22-1/4	3.0
24-1/2	24-1/16	21-9/16	2-1/2	12-5/32	14-27/32	18-5/8	16-3/4	13-7/8	4-5/32	2	5-5/16	4	4	24	19-13/16	13-7/8	27-9/16	23-7/16	24-1/4	5.2
27	25-3/8	23-3/4	2-1/2	13-1/4	15-1/4	20-5/8	18-19/32	15-23/32	3-1/4	2-3/16	2-9/16	5	6	30	21-11/16	15-23/32	29-7/8	26-1/16	27-5/8	6.3
30	28	26-1/2	2-1/2	14-5/8	17-1/4	22-5/8	20-3/16	17-5/16	2-5/8	2-23/32	3-7/8	6	6	32	24-7/16	17-5/16	33-13/16	28-7/8	28-11/16	6.3
33	30-1/4	29-1/8	2-1/2	15-15/16	17-13/16	25-5/8	21-7/8	19	3-15/16	3-1/64	5-5/16	6	6	32	26-5/8	19	36-13/16	31-3/8	30-3/4	6.5
36-1/2	29-5/8	32	3	17-3/4	19-5/8	24-1/4	23-7/8	20-5/8	3-3/4	3	3-1/2	7	8	38	29-3/16	20-5/8	40-21/32	34-5/8	32-7/8	8.0
40-1/4	34-3/8	35-1/4	3	19-3/8	24	26-1/4	26-1/2	23-1/8	3-3/8	3-5/16	5-5/16	8	8	40	31-15/16	23-1/8	44-9/16	37-15/16	36-1/8	8.5
44-1/2	35-7/8	38-15/16	3	21-3/32	24-11/32	29-1/4	29-1/4	26	3-7/32	3-11/16	3-3/8	9	10	46	35-1/8	26	49-1/16	41-11/16	39-3/4	9.4
49	40-1/8	42-7/8	3	23-3/16	25-9/16	34-1/4	32-3/8	29-1/8	3-3/16	4	5-5/8	10	10	48	38-1/2	29-1/8	53-7/8	45-3/4	43-7/8	10.2

Positions of Discharge and Rotation as Viewed From the Drive Side



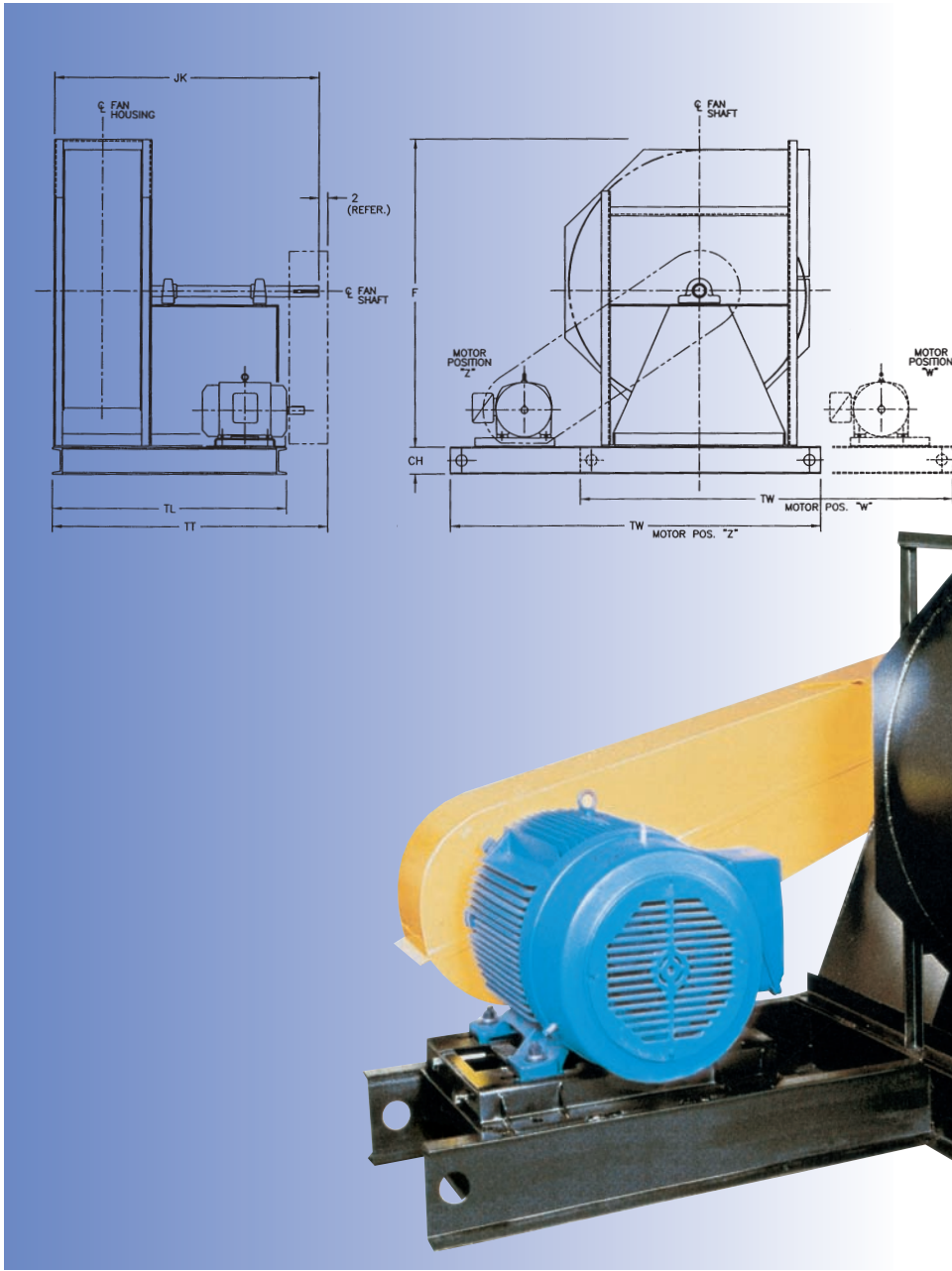
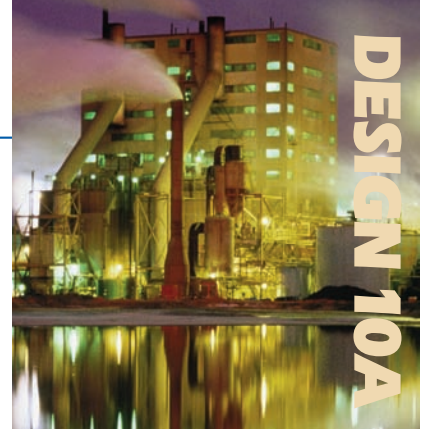
Arrangement 9 - Mean Drive Centers for Frames Shown

Fan Size	Motor Frame	BH	BAU	UB	TAU	TH	TAD	DB
	RF	RF	RF	RF	RF	RF	RF	RF
22-1/4	182-184	24-3/4	24-1/4	23	21-1/2	19-7/8	20	20
24-1/2	213-215	24-1/4	23-3/4	22-1/2	21	19-1/2	19-1/2	19-1/2
	254-256	23-3/4	23-1/8	22	20-1/2	NA	NA	NA
	284	23-3/8	22-3/4	21-5/8	NA	NA	NA	NA
	284-286	23-3/8	22-3/4	21-5/8	NA	NA	NA	NA
27	182-184	27-7/8	27-1/8	25-3/4	24	22-3/8	22-1/4	22-1/4
	213-215	27-1/4	26-5/8	25-1/4	23-1/2	21-7/8	21-3/4	21-1/4
	254-256	26-1/2	25-7/8	24-5/8	23	21-3/8	21-1/4	21-1/4
	284-286	26	25-3/8	24-1/8	22-1/2	NA	NA	NA
30	213-215	30-7/8	30-1/2	28-3/4	26-1/2	24-7/8	23-1/4	23-1/4
	254-256	30-1/8	29-5/8	28	25-3/4	24-1/4	22-5/8	22-5/8
	284-286	29-1/2	29-1/8	27-1/2	25-1/4	23-3/4	22-1/4	22-1/4
	324-326	29	28-1/2	26-7/8	24-7/8	23-3/8	NA	NA
33	254-256	33-5/8	33-1/8	31-1/4	28-7/8	27	25	25
	284-286	33	32-1/2	30-5/8	28-1/4	26-1/2	24-1/2	24-1/2
	324-326	32-3/8	32	30-1/8	27-3/4	26	24-1/8	24
	364-365	31-5/8	31-1/4	29-1/2	27-1/4	NA	NA	NA
36-1/2	254-256	36-7/8	36-1/2	34-1/4	31-1/2	29-1/2	27-3/8	28-1/4
	284-286	36-1/4	35-7/8	33-5/8	31	29	26-3/4	27-5/8
	324-326	35-3/8	35-1/8	33	30-3/8	28-3/8	26-1/4	26-7/8
	284-286	40-3/4	40-3/8	38	34-7/8	32-3/4	30-1/4	29-5/8
40-1/4	324-326	39-7/8	39-1/2	37-1/4	34-1/8	32	29-1/2	29
	364-365	39-1/8	38-3/4	36-3/8	33-3/8	31-1/4	28-7/8	28-1/4
	404-405	38-1/4	38	35-3/4	32-3/4	30-3/4	NA	NA
	284-286	46	45-1/2	42-7/8	39-1/2	37-1/8	34-3/8	33-1/2
44-1/2	324-326	45	44-1/2	42	38-5/8	36-3/8	32-5/8	32-3/4
	364-365	44-1/8	43-3/4	41-1/8	37-7/8	35-1/2	32-7/8	32
	404-405	43-3/8	42-7/8	40-3/8	37-1/8	34-7/8	32-1/4	31-3/8
	444-445	47-3/4	47-3/8	44-1/2	41	38-3/8	35-1/2	34-7/8
49	324-326	50-3/8	50	47-1/8	43-3/8	40-3/4	37-3/4	37-1/8
	364-365	49-1/2	49	46-1/8	42-1/2	39-7/8	36-7/8	36-1/4
	404-405	48-1/2	48-1/8	45-1/4	41-1/2	39	36-1/8	35-1/2
	444-445	47-3/4	47-3/8	44-1/2	41	38-3/8	35-1/2	34-7/8

RF = Refer to Factory

NA = Not Available

CHICAGO BLOWER BACKWARD INCLINED FAN



Unitary Base

Class	Fan Size	F	JK	TT	CH	TL	TW	Weight (lbs.)	Ref. Max. Motor Frame
II	49	108-7/8	93-13/16	96-1/16	8	86-1/2	150	4260	404T
	54-1/4	119-3/4	93-9/16	95-13/16	8	86-15/16	160	4918	404T
	60	132-1/4	103-7/8	106-1/8	8	96-1/16	171	6292	405T
	66	146-1/4*	107-7/8	110-3/8	8	99-5/8	180	7794	444T
	73	162-3/4*	115-15/16	118-7/16	8	108-1/4	189	9166	445T
	III	49	108-7/8	93-13/16	96-1/16	8	86-1/2	151-13/16	6353
54-1/4	119-3/4	93-9/16	95-13/16	8	86-15/16	161-7/16	7028	447T	
60	132-1/4	103-7/8	106-1/8	8	96-1/16	172-5/16	7837	447T	
IV	22-1/4	56-7/16	49-5/16	51-9/16	6	45-7/8	91-3/4	1901	365T
	24-1/2	56-1/2	53-9/16	55-13/16	6	48-5/8	96-3/4	1995	365T
	27	62-7/16	58-1/2	60-3/8	6	52-1/8	104-7/16	2506	405T
	30	68-1/2	63-1/2	65-3/4	6	57-1/2	110-9/16	2797	405T
	33	74-1/2	68-7/16	70-11/16	6	62-3/8	121-7/16	3787	444T
	36-1/2	81-7/8	70-5/8	72-7/8	8	65-1/8	128-1/4	4615	445T
	40-1/4	90-3/16	78	80-1/4	8	73-1/8	135-1/4	5239	445T
	44-1/2	99-3/16	83-5/8	85-7/8	8	78-5/16	143-1/4	5769	445T
	49	108-7/8	93-13/16	96-1/16	8	86-1/2	151-13/16	6786	447T

* Shipped as a split housed fan. Maximum dimension to top of wheel; Size 66 - 110", Size 73 - 120".

NOTES:

Dimensions shown (in inches) are the maximum values per fan size regardless of rotation, discharge or motor frame/position.

For precise rotation, discharge and motor position dimensions, consult your Chicago Sales Engineer. Dimensions are not for construction unless certified.

Approximate weights include fan, base, motor, V-belt drive, and belt guard. For belt drive centers, see charts on dimensional pages.



Engineering Specifications

Design 10A Fans with Backward Inclined Wheels

GENERAL:

Provide a high performance, low maintenance, centrifugal fan with backward inclined wheel and hyperbolic wheel cone. Fan shall be licensed to bear the AMCA Certified Ratings Seal for Air Performance based on tests and procedures in accordance with AMCA standard 211. 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 an approximate 10% volume reduction.

HOUSING:

Fan housing shall be of welded, heavy gauge construction with seven common discharge positions. Scroll is to be continuously welded.

ROTOR:

Wheel shall have cast iron hub (steel hub on sizes 40-1/4, 44-1/2 and 49) lock bolted to a heavy backplate. Blades must be single sheet, high strength low alloy steel, continuously welded to the backplate and hyperbolic wheel cone. Wheels to be statically and 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 heavy duty ball or roller pillow block bearings. Shaft critical speed shall not be less than 1.25 times maximum RPM.

MOUNTING:

Housing and base assembly complete with integral mounting angles for connection to foundation. Adjustable motor base to be welded to base or channel.

FACTORY MOUNTED MOTORS AND DRIVES (Accessory)

Motors and drives to be factory mounted. Unit to be tested at running speed for vibration and balance. Filtered vibration readings, taken at bearings, are not to exceed 0.15 inches per second.

INLET VOLUME CONTROL (Accessory)

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.

ACCESSORIES (Choose from the following)

- Slip-fit Inlet
- Flanged Inlet or Outlet - Punched Holes
- Companion Flange - Punched or Unpunched - Inlet, Outlet or Both
- Type "C" AMCA Spark Resistant Construction
- 1-1/2" NPT Housing Drain
- Shaft Seal
- Quick Clamp or Raised Bolted Access Door
- Inlet Screen
- Shaft Cooling Wheel with Guard (Required from 300 - 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.
- Unitary Base: Heavy channel construction, continuously welded, with fan and motor base welded to insure vibration-free service.
- Inlet Box: Bolt-on with access door and options for support leg mounting and shop assembly.

Chicago Industrial Fans for Every Application

SOB FANS

The SOB version of Chicago's Square Fans has a backward inclined wheel to handle corrosive or dusty airstreams. It is also suited for high temperature airstreams to 650°F. Sizes range from 12-1/4 to 44-1/2 with volumes to 55,600 CFM and pressures to 15" WG. Ask for Bulletin SOB.

SOI FANS

Using industrial duty radial blades that resist material build-up, the SOI fan is especially suited for sticky, heavy or abrasive applications. With welded heavy steel plate housing, steel wheels and oversize bearings, the SOI is a hard working industrial fan designed for pressures to 18" WG. Inlet diameters from 5" to 17". Options include alternate finishes to meet customer specifications. Ask for Bulletin SOI.

INDUSTRIAL CENTRIFUGAL FANS

The flat radial blades of Chicago's Design 16A wheels are designed to handle dirty air without material build-up. Welded housing of heavy steel plate stands up to demanding industrial applications and temperatures to 800°F. Wheel diameters to 71", with volumes to 70,000 CFM and pressures to 40" WG. Ask for Bulletin ICF.



*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