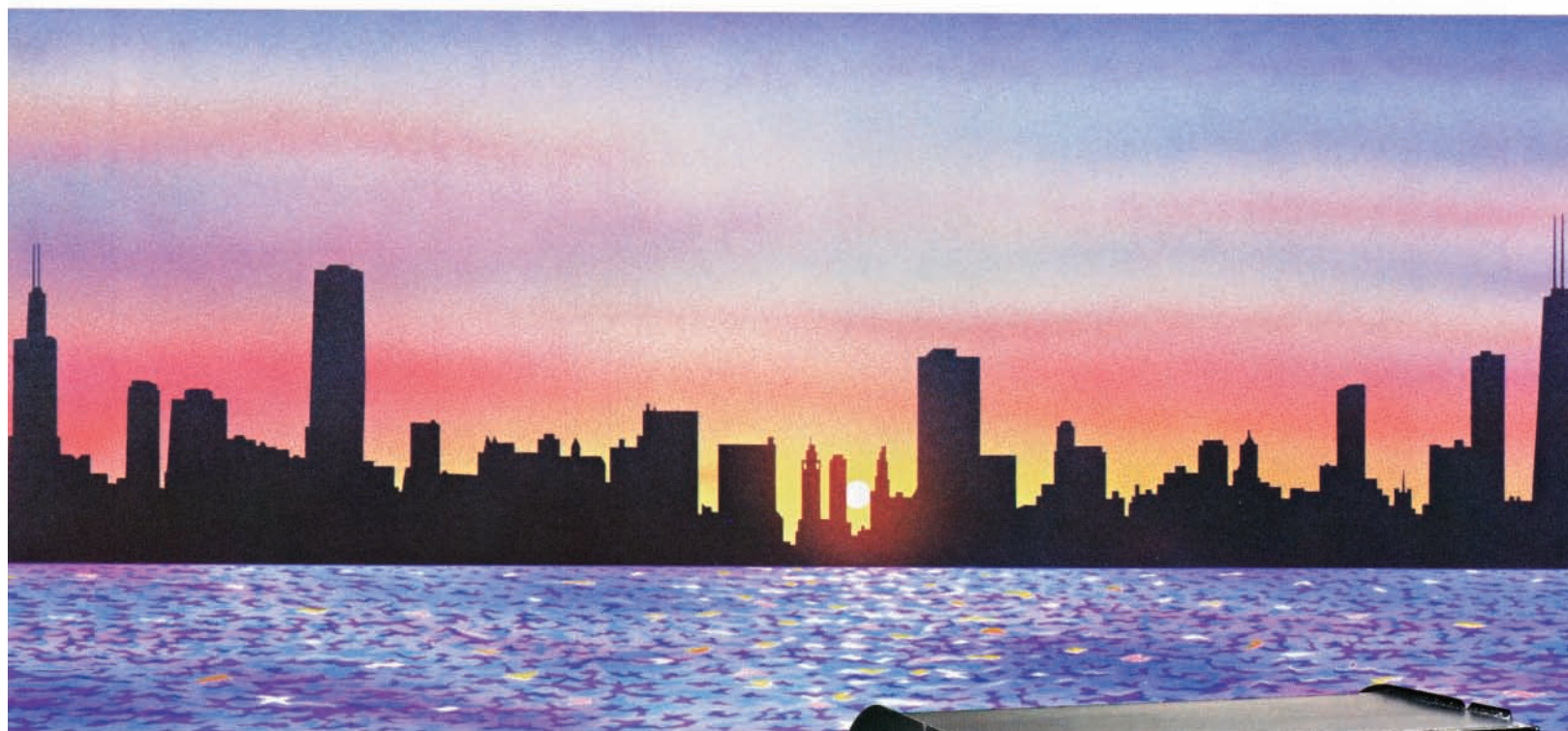


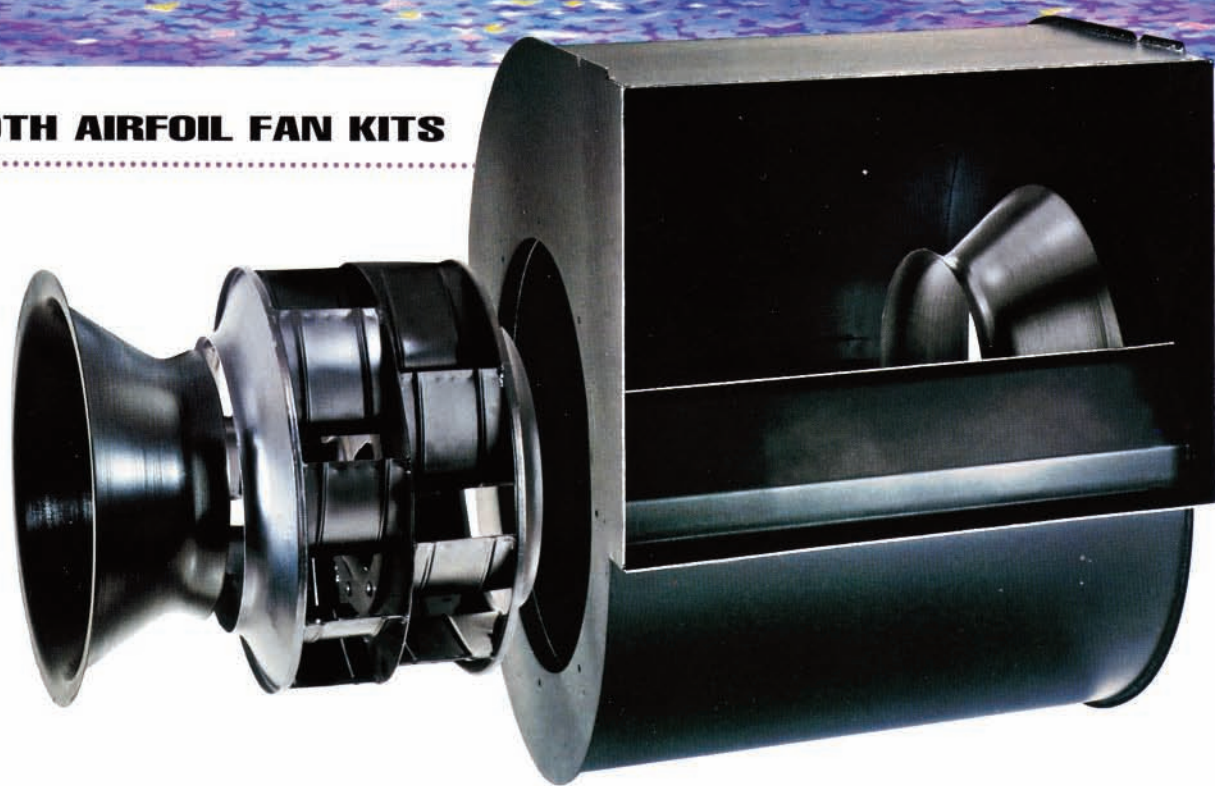
# **HICAGO**

BULLETIN DAF-101

## **D E S I G N 6 2**

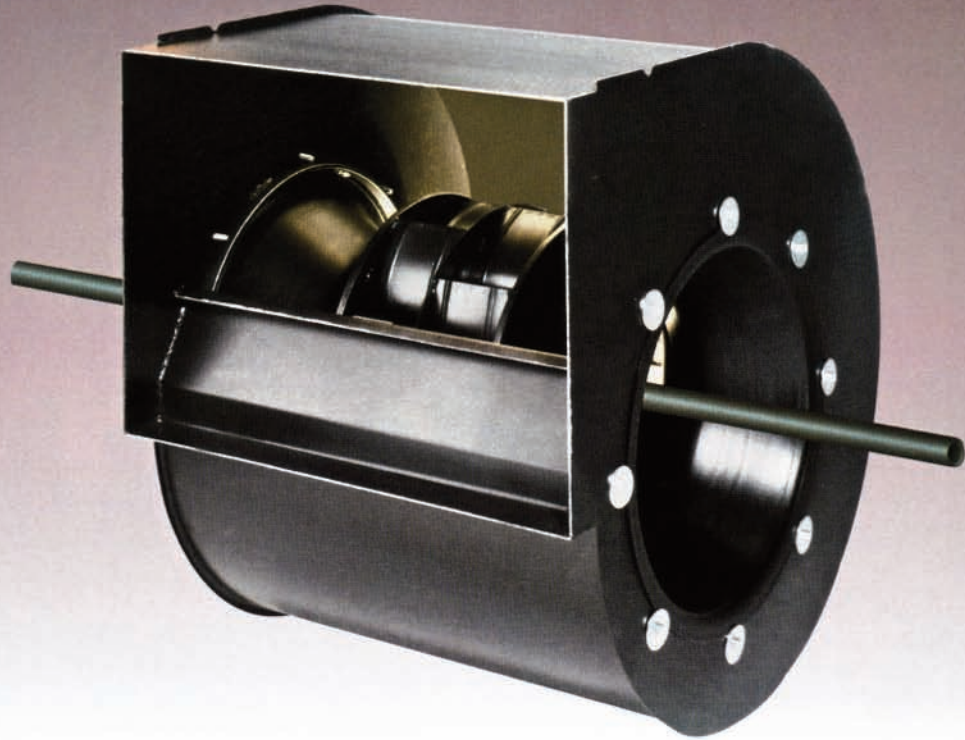


### **DOUBLE WIDTH AIRFOIL FAN KITS**



CHICAGO BLOWER CORPORATION • 1675 GLEN ELLYN ROAD • GLENDALE HEIGHTS, ILLINOIS • U.S.A.

- WHEELS
- INLET CONES
- INLET VOLUME CONTROLS
- SHAFTS
- HOUSINGS
- SHAFT COOLER ASSEMBLIES



### DOUBLE WIDTH AIRFOIL FAN KITS



*The manufacturing of all Chicago Fans Kits is monitored by stringent Quality Control and Quality Assurance*

*Programs. Consistent fan quality and reliability attests to Chicago's dedication to customer satisfaction. "Our fan's most important feature is the reliability we are able to add to your product."*

Chicago Blower's Airfoil Fan Kits provide the user with the flexibility to custom build a fan from individual components to meet their specific air performance and configuration requirements. With its airfoil wheel, the Fan Kit is efficient, economical and versatile. Among the components offered are airfoil wheels, inlet cones with or without integral vanes, housings and shaft coolers, as well as shafts and bearings.

#### UNIVERSAL APPLICATIONS

Any supply air or clean exhaust application is ideal for Chicago's Airfoil Fan Kit. The Fan Kits fill most general industrial and commercial air moving needs, including installations handling light dust, fumes or moisture. Applications include ovens,

dryers and kilns as well as pent-houses, plenums and panel walls. Airfoil Fan kits are available in fourteen sizes capable of volumes to 100,000 CFM, pressures to 15" WG, and temperatures to 800° F.

#### CHICAGO QUALITY

The experience gained as a leading supplier of all types of industrial and custom heavy-duty fans is reflected in the rugged construction of all Chicago built fans. It's called "Industrial Quality" and guarantees exceptional performance and reliability. If you are unsure of the suitability of a particular fan for a specific application, the Chicago air moving professionals will evaluate your needs and provide recommendations. Chicago Blower offices are located throughout North America and around the world.

### CHICAGO AIRFOIL WHEEL

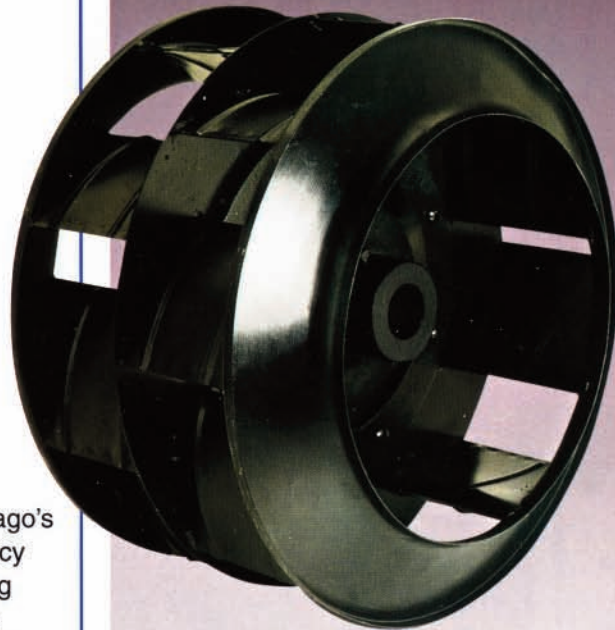
The airfoil blade is recognized as the industry's most efficient and quietest design, creating a smooth lifting airflow over the entire surface of the blade. Chicago's airfoil wheel has a broad efficiency curve that offers a wide operating range with more selections from each fan size. Wheels are constructed of stitch welded high strength steel with keyed straight bore. Continuously welded construction is also available. Wheels are statically and dynamically balanced.

### REDUCED ENERGY COSTS

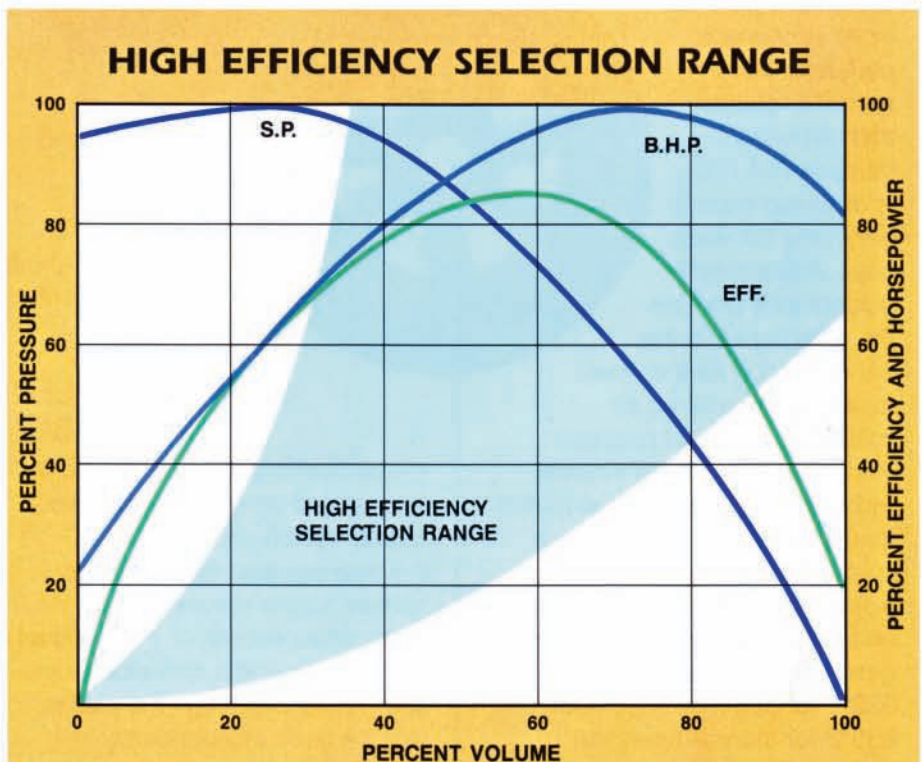
Because the airfoil blade glides through the air with less turbulence, the fan requires less horsepower to deliver comparable air volume. Since a downsized motor can then be used, energy costs will be reduced substantially. The more efficient airfoil blade also reduces noise levels significantly.

### STEEP PRESSURE CURVES

Chicago's airfoil fan with its steep pressure characteristics is ideal for applications with pressure variations. Even if actual pressure should reach 30% higher than anticipated, delivered volume would be typically reduced by only 10%.



Chicago's Fan Kits feature wheels fitted with hollow true airfoil blades. Weep holes prevent moisture build-up inside the blade. Chicago's airfoil wheel will withstand temperatures to 800°F.



### HOUSINGS

Housings are fabricated from heavy gauge steel. They are suitable for CW or CCW rotation as inlet cones are mounted on both sides. Sizes 445 and 490 include welded stiffeners.



### INLET CONES

Full width cones are used with either full width housings or no housing as an open wheel installation. The cone is held to the housing with flat washers to facilitate proper positioning. A 72% cone is needed for 72% housings, or the cone can be used with no housing.

100% Width Inlet Cone



72% Width Inlet Cone



### INLET VOLUME CONTROLS

The Inlet Volume Control (IVC) is ideal for variable volume systems. It provides more economical performance at reduced volumes than an outlet damper. The IVC is mounted entirely within the full width cone. Adjustable guide vanes pre-spin the entering air in the same rotation as the wheel to supply the desired air volume at the exact pressure. Additional advantages include reduced operating costs at partial load and the use of the lowest cost fixed pitch V-belt drive. Applications are limited to clean air and uncontaminated non-corrosive gases. Temperature limits are 350°F for automatic operation and 650°F for manual operation.



Inlet Volume Control

Shaft Cooler Assembly

### SHAFT COOLER ASSEMBLY

When bearings are outside the airstream and temperatures exceed 350°F, a shaft cooler between the bearings and the housing or plenum wall is recommended. Assemblies consist of a spun steel cooler cone and a split aluminum shaft cooler. Although the cooler may be used independently, the

### 72% Width Housings

Same as full width, except with the narrower housing the installation needs less plenum space and will use a correspondingly shorter fan shaft. A matching 72% width inlet cone is necessary. See Width Factors on page 5 for performance corrections.

### RA Housing

The Return Air fan offers increased efficiencies for high volume and low pressure applications. It is available in both full and 72% widths, with construction the same as the standard housing.



use of a cooler cone will shorten the bearing centers. If the bearings are in the airstream, consult bearing manufacturer for safe temperature limits. Assemblies are suitable for field mounting.

### OPEN WHEEL DATA

Turbulence is caused by sharp bends and abrupt area changes beyond the fan housing. This loss can be prevented by baffles or turning vanes. As an option, open wheel factors can be applied to compensate for the loss.

Apply the following factors to Capacity in the performance tables and maintain a minimum clearance of one wheel radius between the wheel and the wall or walls of the discharge plenum.

#### Open Wheel Factors

SP/VP	20.0	15.0	10.0	6.67	3.33	1.67	.84	.32
RPM	1.03	1.01	.99	.97	.96	.95	.94	.92
BHP	1.15	1.08	1.01	.95	.89	.82	.79	.73

$$SP/VP = \frac{\text{Static Pressure}}{\text{Velocity Pressure}} \quad VP = (OV^* / 4005)^2$$

\* Note: Assume housing is used – select OV from Rating Tables

### 72% WIDTH FACTORS

When space limitations require the use of 72% width inlet cones, corrections must be made to attain the ratings shown in the tables. **Multiply RPM x 1.05 and BHP x 1.20.** These corrections must be made before checking temperature speed factors in Table II. If a housing is required, a matching 72% housing must be specified.

### PLENUM EFFECTS

When airfoil kits are used in plenums, performance will be affected by the inlet gap (IG). Correction factors must be applied to obtain catalog ratings.

#### Open Plenum

In an open plenum, air enters from more than one direction.

#### Closed Plenum

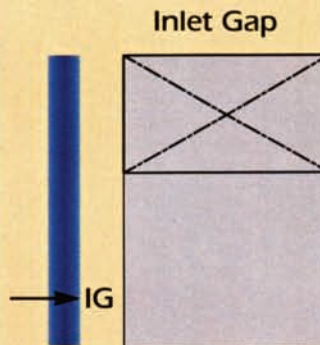
In a closed plenum, air enters only from one direction. Most efficient designs will center the fan inlet in the plenum. If the inlet is not centered, baffles should be used to prevent air spinning. These baffles should be placed in the inlet gaps on centerline from shaft to closed end of plenum and opposite the plenum inlet.

#### EXAMPLE:

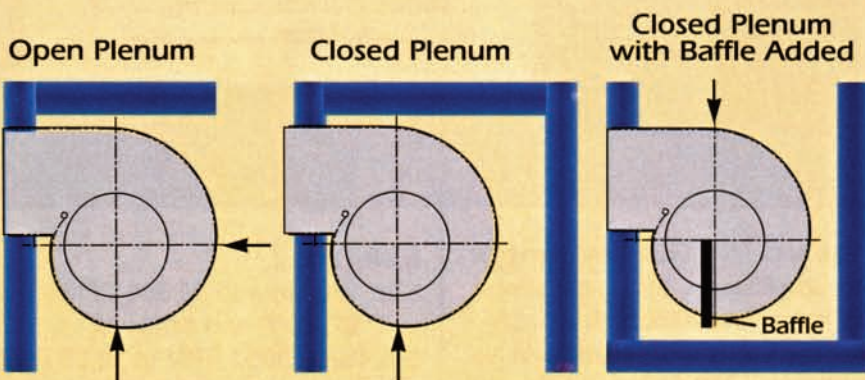
Assume fan selected is Size 182 (nominal size 18.2"). Plenum is a closed type with an Inlet Gap (IG) of 7", which is 38% of nominal fan size. Use 40%. Using the rating table for the selected fan and the chart at right, multiply the RPM by 1.04 and the BHP by 1.11.

OPEN PLENUM	IG % of Fan Size*	Multiply	
		RPM	BHP
	33-1/3% or more	1.00	1.00
	30%	1.01	1.03
	25%	1.04	1.13
	20%	1.10	1.33
	15% or less	Not Recommended	

CLOSED PLENUM	% of Fan Size*	Multiply		
		RPM	BHP	
		70%	1.01	1.05
		60%	1.02	1.06
		50%	1.03	1.08
		40%	1.04	1.11
33-1/3	1.05	1.16		
30% or less	Not Recommended			



\* Fan Size refers to "nominal size" derived by adding a decimal point one place from the right.  
Example - 122 = nominal size 12.2".



Fan capacity tables are based on standard air at 70°F and sea level. For other operating conditions, correct the required Static Pressure (SP) before using the rating tables. Brake Horsepower (BHP) is corrected after the fan selection has been made.

### EXAMPLE:

Select a D/62 fan kit to handle 5500 CFM at 2" SP, 120°F and 1500 feet above sea level.

1. Refer to Table 1. At 1500 feet and 120°F, the correction factor is 1.16.

Corrected SP is 1.16 X 2" SP = 2.32" SP at 70°F and sea level.

2. Using the fan rating tables, one fan selection for 5500 CFM at 2.32" SP is a Size 150. The fan will run at 2500 RPM and require 3.48 BHP at 70°F and sea level. (Actual RPM and BHP was calculated by interpolating between the 2" and 2-1/2" SP in the tables.)

3. Correct the BHP. Divide 3.48 by the correction factor (1.16).  $3.48 \div 1.16 = 3.00$  BHP at 120°F and 1500' altitude.

4. The wheel must be checked for maximum RPM using Table II.

a. Divide wheel operating RPM by the Wheel Deration factor for 120°F. Wheel RPM at 70°F is  $2500 \text{ RPM} \div .96 = 2604$ .

b. Check Size 150 rating table for maximum RPMs. The required wheel RPM of 2604 is within the safe limit of 5346.

### RA DESIGN

When working with lower pressure, typically below 5" SP, and space and initial cost are primary considerations, the Design 62 DW RA fan in smaller sizes may be a better selection. The

**TABLE I – Temperature and Altitude Correction**

AIR TEMP (°F)	ALTITUDE (feet) with BAROMETRIC PRESSURE (HG)							
	0'	500'	1000'	1500'	2000'	3000'	4000'	5000'
	29.92	29.38	28.86	28.33	27.82	26.82	25.84	24.90
-40	.79	.81	.82	.84	.85	.88	.92	.95
0	.87	.88	.90	.92	.93	.97	1.00	1.04
40	.94	.96	.96	1.00	1.01	1.05	1.09	1.13
80	1.02	1.04	1.06	1.08	1.10	1.14	1.18	1.22
120	1.09	1.11	1.13	1.16	1.18	1.22	1.27	1.31
160	1.17	1.19	1.21	1.24	1.26	1.31	1.35	1.41
200	1.25	1.27	1.29	1.32	1.34	1.39	1.44	1.50
300	1.43	1.46	1.49	1.51	1.54	1.60	1.66	1.72
400	1.62	1.65	1.68	1.71	1.75	1.81	1.88	1.95
500	1.81	1.84	1.88	1.91	1.95	2.02	2.10	2.18
600	2.00	2.04	2.07	2.11	2.15	2.23	2.32	2.40
700	2.19	2.23	2.27	2.31	2.35	2.44	2.53	2.63
800	2.38	2.42	2.48	2.51	2.56	2.65	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

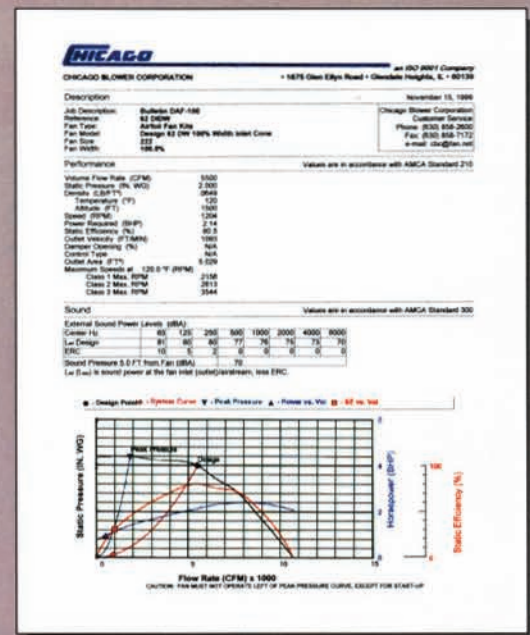
**TABLE II – Speed Deration**

TEMP (°F)	Deration Factors	
	Steel Wheel	Steel Shaft
70	1.00	1.00
200	.93	1.00
300	.89	.99
400	.86	.98
500	.82	.97
600	.79	.96
700	.76	.94
800	.68	.93

Contact your local Chicago Blower sales engineer for software and assistance.



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



RA Fan was specifically designed for improved efficiency and lower sound levels in low pressure, high volume applications. A typical example of an advantageous RA selection follows:

### EXAMPLE:

Size 150 fan with 10,500 CFM at 1" SP, 70°F and sea level.  
 Std. Fan – 3950 RPM at 12.33 BHP  
 RA Fan – 3745 RPM at 9.97 BHP

<b>135</b>		<b>DOUBLE WIDTH</b>																<b>RPM 5288</b>			
		<b>Wheel Diameter: 13-7/32 Outlet Area: 1.89 sq. ft.</b>																			
CFM	OV FPM	1/4" SP		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	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1000	529	731	.05	924	.10																
1200	635	792	.07	980	.12	1269	.24														
1400	741	870	.09	1030	.15	1303	.27	1549	.43												
1600	847	951	.12	1087	.18	1358	.32	1571	.47	1788	.65										
1800	952	1034	.15	1159	.21	1412	.38	1618	.53	1806	.71	1999	.92	2185	1.15						
2000	1058	1118	.19	1238	.26	1462	.42	1675	.61	1847	.79	2018	.98	2191	1.22	2361	1.47				
2200	1164	1204	.23	1320	.31	1518	.48	1728	.69	1902	.89	2056	1.08	2212	1.30	2370	1.55	2526	1.82	2676	2.12
2400	1429	1425	.37	1527	.48	1699	.67	1861	.88	2035	1.14	2195	1.40	2331	1.63	2458	1.86	2582	2.11	2709	2.39
2700	1693	1653	.57	1741	.69	1902	.94	2039	1.16	2175	1.41	2321	1.70	2466	2.01	2598	2.32	2716	2.60	2825	2.87
3700	1958		.84	1963	.97	2110	1.26	2240	1.54	2357	1.80	2472	2.07	2596	2.39	2724	2.74	2849	3.10	2965	3.46
4200	2222	2120	1.18	2189	1.33	2322	1.66	2446	1.98	2557	2.29	2659	2.58	2760	2.88	2866	3.22	2977	3.59	3090	4.00
4700	2487	2356	1.61	2418	1.78	2539	2.14	2655	2.50	2762	2.87	2861	3.21	2953	3.53	3042	3.86	3134	4.22	3230	4.60
5200	2751	2594	2.13	2651	2.32	2761	2.71	2868	3.12	2970	3.53	3066	3.92	3155	4.30	3238	4.66	3320	5.02	3401	5.40
5700	3016	2832	2.77	2885	2.98	2986	3.40	3085	3.83	3181	4.28	3273	4.73	3360	5.16	3442	5.58	3519	5.98	3594	6.37
6200	3280	3072	3.52	3120	3.75	3214	4.20	3306	4.67	3396	5.15	3483	5.64	3567	6.13	3647	6.60	3723	7.06	3795	7.49
7200	3810	3553	5.43	3595	5.69	3677	6.21	3757	6.74	3836	7.29	3914	7.85	3990	8.41	4064	8.98	4136	9.54	4206	10.10
8200	4339	4035	7.93	4072	8.23	4145	8.82	4216	9.42	4286	10.03	4356	10.65	4424	11.28	4492	11.92	4558	12.57	4623	13.22
9200	4868	4519	11.12	4552	11.45	4617	12.11	4681	12.78	4744	13.45	4807	14.14	4869	14.84	4930	15.54	4991	16.26	5051	16.98
10200	5397	5003	15.07	5033	15.43	5092	16.16	5150	16.90	5208	17.65	5265	18.40	5321	19.16	5377	19.93	5433	20.71	5488	21.49
11200	5926	5488	19.87	5515	20.27	5569	21.07	5622	21.87	5675	22.69	5728	23.51	5780	24.33						
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
3000	1587	2883	2.93	3113	3.57	3345	4.29	3569	5.07												
3250	1720	2943	3.21	3151	3.81	3364	4.50	3578	5.28												
3500	1852	3014	3.53	3208	4.13	3402	4.79	3599	5.53	3994	7.23										
3750	1984	3085	3.86	3277	4.50	3458	5.15	3638	5.86	4008	7.51	4373	9.41								
4000	2116	3151	4.17	3349	4.90	3526	5.58	3694	6.28	4035	7.86	4383	9.72	4722	11.78						
4500	2381	3276	4.77	3482	5.65	3668	6.50	3833	7.29	4137	8.84	4439	10.57	4748	12.56	5055	14.76	5353	17.12		
5000	2646	3419	5.46	3607	6.38	3795	7.36	3971	8.33	4277	10.11	4551	11.82	4820	13.67	5096	15.77	5375	18.08	5650	20.57
5500	2910	3592	6.36	3753	7.22	3923	8.21	4095	9.28	4416	11.41	4692	13.36	4942	15.24	5186	17.21	5435	19.38	5687	21.77
6000	3175	3785	7.45	3926	8.30	4073	9.24	4227	10.29	4542	12.62	4831	14.93	5085	17.06	5317	19.10	5541	21.20	5766	23.44
6500	3439	3986	8.68	4117	9.59	4248	10.51	4382	11.51	4669	13.83	4958	16.38	5223	18.88	5460	21.20	5678	23.43		
7000	3704	4190	10.05	4317	11.04	4439	12.01	4560	13.01	4813	15.23	5083	17.82	5350	20.57	5598	23.27				
8000	4233	4603	13.17	4727	14.38	4842	15.55	4952	16.67	5164	18.90	5379	21.30	5610	24.07						
9000	4762	5025	16.88	5142	18.29	5254	19.68	5360	21.02	5559	23.57	5748	26.07								

**135 RA** 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.

CFM	OV FPM	1/4" SP		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	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1000	529	739	.06	963	.11																
1300	688	831	.08	1015	.15	1353	.31														
1600	847	935	.11	1099	.19	1386	.36	1658	.56												
1900	1005	1047	.15	1196	.24	1451	.43	1688	.64	1918	.89	2131	1.15								
2200	1164	1164	.21	1300	.30	1535	.51	1746	.74	1950	.99	2150	1.27	2341	1.57						
2500	1323	1286	.27	1410	.38	1630	.61	1824	.86	2007	1.12	2187	1.41	2364	1.71	2536	2.04	2701	2.39		
2800	1481	1410	.35	1524	.47	1730	.73	1913	.99	2082	1.27	2245	1.57	2406	1.89	2565	2.22	2721	2.58	2874	2.95
3100	1640	1536	.44	1642	.58	1835	.86	2008	1.15	2168	1.45	2319	1.76	2467	2.09	2613	2.43	2756	2.80	2899	3.18
3400	1799	1664	.55	1763	.70	1944	1.00	2109	1.32	2261	1.64	2404	1.97	2542	2.32	2677	2.68	2810	3.05	2942	3.44
3700	1958	1793	.69	1886	.84	2056	1.17	2213	1.51	2359	1.85	2496	2.20	2626	2.57	2753	2.95	2877	3.34	3000	3.74
4000	2116	1924	.84	2010	1.01	2171	1.36	2320	1.72	2460	2.09	2592	2.46	2717	2.85	2838	3.24	2955	3.65	3070	4.07
4500	2381	2143	1.15	2221	1.33	2369	1.72	2506	2.12	2636	2.53	2760	2.95	2878	3.37	2992	3.79	3101	4.23	3207	4.68
5000	2646	2364	1.53	2436	1.73	2571	2.15	2699	2.59	2820	3.05	2936	3.50	3048	3.96	3155	4.43	3259	4.90	3360	5.38
5500	2910	2587	1.99	2652	2.21	2778	2.67	2897	3.14	3010	3.64	3120	4.14	3225	4.64	3327	5.14	3425	5.65	3521	6.17
6000	3175	2810	2.54	2871	2.78	2987	3.27	3098	3.78	3205	4.31	3308	4.85	3408	5.40	3505	5.94	3599	6.49	3690	7.05
6500	3439	3034	3.18	3091	3.44	3200	3.97	3304	4.52	3404	5.08	3502	5.66	3596	6.24	3688	6.84	3778	7.43	3865	8.02
7000	3704	3259	3.93	3312	4.21	3414	4.77	3512	5.36	3607	5.95	3699	6.57	3789	7.19	3877	7.83	3962	8.46	4045	9.10
7500	3968	3485	4.79	3534	5.08	3630	5.69	3723	6.31	3813	6.94	3900	7.59	3986	8.25	4069	8.92	4151	9.60	4231	10.28
8250	4365	3824	6.31	3869	6.63	3957	7.29	4042	7.96	4126	8.65	4207	9.35	4286	10.07	4364	10.79	4440	11.53		
9000	4762	4164	8.12	4205	8.47	4286	9.19	4366	9.92	4443	10.66										
CFM	OV FPM	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		10" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
3000	1587	3032	3.50	3171	3.91	3305	4.34														
3250	1720	3054	3.70	3188	4.13	3319	4.56	3447	5.01	3570	5.48										
3500	1852	3087	3.94	3214	4.36	3339	4.81	3463	5.27	3584	5.74	3703	6.23	3818	6.72	3929	7.23				
3750	1984	3131	4.20	3251	4.63	3369	5.08	3487	5.54	3604	6.02	3719	6.52	3832	7.02	3943	7.54	4051	8.07		
4000	2116	3185	4.49	3298	4.93	3410	5.39	3521	5.85	3632	6.33	3742	6.83	3852	7.34	3960	7.87	4066	8.41	4273	9.52
4250	2249	3245	4.80	3353	5.26	3459	5.72	3565	6.20	3671	6.68	3775	7.18	3879	7.70	3983	8.23	4086	8.78	4289	9.90
4500	2381	3312	5																		

## 150

### DOUBLE WIDTH

Wheel Diameter: 14-9/16 Outlet Area: 2.33 sq. ft.

RPM **4657**

CFM	OV FPM	1/4" SP		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	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1200	515	660	.06	835	.12																
1400	601	704	.08	877	.14	1148	.28														
1600	687	759	.10	916	.17	1166	.31	1403	.50												
1800	773	819	.12	954	.19	1202	.36	1411	.54	1619	.76										
2000	858	881	.15	1001	.22	1244	.41	1433	.59	1624	.81	1810	1.07								
2500	1073	1037	.24	1145	.33	1340	.53	1535	.77	1690	.99	1839	1.22	1992	1.50	2144	1.81				
3000	1288	1200	.36	1298	.48	1461	.69	1629	.95	1795	1.24	1933	1.51	2058	1.77	2182	2.05	2309	2.37	2437	2.72
3500	1502	1368	.53	1455	.66	1608	.93	1743	1.18	1888	1.48	2034	1.83	2163	2.15	2276	2.45	2383	2.76	2489	3.07
4000	1717	1539	.74	1617	.90	1761	1.21	1884	1.49	2001	1.78	2129	2.13	2259	2.52	2380	2.91	2489	3.27	2588	3.62
4500	1931	1712	1.01	1783	1.18	1916	1.53	2035	1.87	2140	2.18	2245	2.51	2357	2.90	2473	3.32	2586	3.77	2692	4.20
5500	2361	2063	1.75	2122	1.95	2236	2.37	2343	2.81	2442	3.23	2532	3.62	2618	4.00	2703	4.39	2791	4.83	2884	5.31
6500	2790	2418	2.80	2469	3.04	2567	3.52	2661	4.02	2753	4.54	2839	5.04	2919	5.52	2994	5.98	3067	6.43	3138	6.88
7500	3219	2776	4.21	2820	4.48	2906	5.03	2989	5.60	3071	6.18	3151	6.78	3227	7.36	3300	7.93	3369	8.49	3434	9.01
8500	3648	3135	6.05	3174	6.35	3251	6.97	3325	7.60	3399	8.25	3471	8.91	3542	9.58	3610	10.25	3677	10.91	3740	11.55
9500	4077	3495	8.36	3530	8.70	3599	9.39	3667	10.08	3733	10.80	3799	11.52	3864	12.26	3927	13.00	3990	13.75	4050	14.50
10500	4506	3856	11.21	3887	11.58	3950	12.33	4012	13.10	4073	13.88	4133	14.67	4192	15.47	4251	16.28	4309	17.10	4366	17.93
11500	4936	4217	14.64	4246	15.05	4304	15.87	4361	16.71	4417	17.55	4472	18.40	4527	19.27	4581	20.15	4635	21.03	4688	21.93
12500	5365	4579	18.72	4606	19.17	4659	20.06	4712	20.96	4763	21.87	4815	22.79	4866	23.72	4916	24.66	4966	25.61	5015	26.57
13500	5794	4941	23.51	4966	23.98	5015	24.95	5064	25.92	5113	26.90	5160	27.88	5208	28.88	5255	29.88	5302	30.90		
14500	6223	5303	29.05	5327	29.56																
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
3000	1288	2563	3.10																		
3500	1502	2597	3.42	2816	4.22	3031	5.10														
4000	1717	2682	3.96	2867	4.68	3057	5.52	3249	6.45	3620	8.53										
4500	1931	2788	4.61	2963	5.38	3128	6.17	3294	7.03	3634	9.05	3967	11.35								
5000	2146	2886	5.23	3069	6.17	3230	7.03	3380	7.89	3679	9.77	3985	12.00	4288	14.49						
6000	2575	3085	6.51	3259	7.62	3430	8.80	3589	9.96	3866	12.07	4116	14.14	4364	16.40	4618	18.96	4873	21.77	5125	24.80
7000	3004	3351	8.38	3485	9.41	3628	10.58	3777	11.87	4068	14.62	4326	17.23	4553	19.64	4766	22.05	4978	24.60	5194	27.40
8000	3433	3649	10.81	3768	11.92	3884	13.04	4003	14.25	4258	17.04	4517	20.16	4760	23.26	4978	26.17	5176	28.92		
9000	3863	3955	13.65	4069	14.97	4177	16.23	4280	17.48	4490	20.11	4714	23.17	4946	26.59	5173	30.14				
10000	4292	4265	16.93	4376	18.47	4481	19.95	4579	21.37	4768	24.15	4955	27.06	5154	30.33						
11000	4721	4581	20.72	4687	22.45	4788	24.15	4885	25.80	5065	28.93	5236	31.99								
12000	5150	4902	25.10	5002	26.99	5099	28.88	5193	30.74												
13000	5579	5229	30.16	5323	32.19																

## 150 RA

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.

CFM	OV FPM	1/4" SP		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	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1200	515	667	.07	873	.14																
1500	644	735	.09	908	.17	1225	.36														
1800	773	810	.12	965	.21	1242	.41	1498	.65												
2100	901	891	.16	1034	.25	1280	.47	1513	.72	1731	1.01										
2400	1030	976	.20	1108	.31	1335	.55	1543	.81	1746	1.10	1937	1.43								
2700	1159	1064	.25	1187	.38	1399	.63	1589	.91	1773	1.21	1953	1.55	2125	1.92						
3000	1288	1155	.32	1269	.45	1470	.73	1647	1.03	1815	1.34	1980	1.69	2142	2.06	2299	2.46	2449	2.88		
3500	1502	1310	.45	1412	.60	1595	.92	1758	1.25	1909	1.60	2054	1.97	2197	2.35	2337	2.76	2476	3.19	2612	3.65
4000	1717	1468	.62	1560	.79	1728	1.15	1880	1.52	2021	1.90	2153	2.30	2281	2.71	2407	3.14	2531	3.58	2654	4.05
4500	1931	1628	.83	1712	1.02	1867	1.42	2009	1.83	2141	2.25	2266	2.68	2384	3.12	2499	3.58	2612	4.05	2723	4.54
5000	2146	1791	1.09	1868	1.30	2011	1.74	2144	2.19	2268	2.65	2386	3.11	2499	3.59	2606	4.08	2711	4.58	2813	5.09
5500	2361	1955	1.41	2026	1.64	2159	2.11	2283	2.60	2401	3.10	2513	3.61	2620	4.12	2722	4.64	2821	5.17	2918	5.72
6000	2575	2120	1.79	2185	2.03	2310	2.53	2427	3.06	2538	3.61	2644	4.16	2746	4.71	2844	5.27	2939	5.83	3031	6.41
6500	2790	2286	2.23	2347	2.49	2463	3.03	2574	3.59	2679	4.18	2780	4.77	2877	5.36	2971	5.96	3062	6.57	3151	7.18
7000	3004	2452	2.74	2509	3.02	2619	3.59	2723	4.19	2823	4.81	2919	5.45	3012	6.09	3102	6.73	3190	7.37	3275	8.02
7500	3219	2619	3.32	2673	3.62	2776	4.23	2875	4.87	2970	5.53	3062	6.20	3151	6.88	3237	7.56	3321	8.25	3403	8.94
8500	3648	2955	4.74	3003	5.08	3095	5.76	3185	6.47	3271	7.20	3355	7.94	3436	8.70	3516	9.47	3594	10.24	3669	11.02
9500	4077	3292	6.52	3335	6.90	3419	7.66	3500	8.44	3579	9.24	3656	10.05	3731	10.88	3805	11.72	3877	12.58	3947	13.44
10500	4506	3630	8.72	3669	9.13	3745	9.97	3820	10.82	3893	11.69	3964	12.57	4034	13.47	4102	14.38				
11500	4936	3968	11.36	4004	11.81	4074	12.73														
CFM	OV FPM	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		10" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
4000	1717	2775	4.54	2896	5.05	3014	5.58	3130	6.13	3241	6.70	3349	7.28								
4400	1888	2820	4.93	2931	5.45	3042	5.99	3152	6.55	3260	7.13	3366	7.72	3470	8.33	3571	8.95	3670	9.59		
4800	2060	2880	5.38	2983	5.91	3086	6.46	3188	7.02	3290	7.61	3391	8.21	3491	8.83	3590	9.47	3687	10.12	3875	11.46
5200	2232	2952	5.88	3049	6.43	3145	6.99	3240	7.57	3335	8.16	3430	8.77	3524	9.40	3617	10.04	3710	10.70	3893	12.07
5600	2403	3033	6.41	3124	6.99	3215	7.58	3305	8.17	3394	8.78	3483	9.40	3571	10.04	3659	10.69	3746	11.36	3920	12.74
6000	2575	3120	7.00	3208	7.60	3294	8.21	3379	8.83	3464	9.46	3547	10.10	3631	10.75	3714	11.42	3796	12.10	3960	13.49
6400	2747	3213	7.63	3297	8.26	3380															



<b>165</b>		<b>DOUBLE WIDTH</b>																<b>RPM 4083</b>			
		Wheel Diameter: 16-3/16 Outlet Area: 2.82 sq. ft.																			
CFM	OV FPM	1/4" SP		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	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1600	567	612	.09	769	.16	1031	.34														
1800	638	647	.10	800	.19	1036	.36														
2000	709	689	.12	828	.21	1052	.39	1263	.63												
2500	887	800	.19	907	.28	1125	.51	1294	.73	1463	1.00	1629	1.33								
3000	1064	914	.28	1011	.39	1194	.64	1368	.92	1509	1.18	1648	1.47	1790	1.82	1928	2.21				
3500	1241	1031	.39	1123	.53	1275	.78	1439	1.11	1585	1.43	1708	1.73	1825	2.05	1946	2.42	2068	2.82	2188	3.27
4500	1596	1276	.73	1352	.90	1487	1.24	1604	1.56	1727	1.93	1855	2.37	1973	2.80	2076	3.20	2171	3.58	2263	3.98
5500	1950	1528	1.23	1591	1.43	1712	1.86	1819	2.27	1914	2.65	2010	3.06	2113	3.54	2219	4.07	2321	4.61	2415	5.13
6500	2305	1783	1.93	1838	2.17	1944	2.67	2043	3.18	2134	3.66	2216	4.11	2295	4.57	2377	5.06	2463	5.62	2553	6.22
7500	2660	2041	2.87	2090	3.15	2183	3.71	2273	4.30	2358	4.88	2437	5.45	2510	5.98	2580	6.50	2649	7.03	2720	7.59
8500	3014	2301	4.09	2344	4.40	2428	5.03	2509	5.68	2588	6.35	2663	7.02	2734	7.66	2800	8.28	2864	8.88	2925	9.47
9500	3369	2562	5.63	2601	5.97	2676	6.67	2750	7.39	2822	8.12	2892	8.87	2960	9.62	3025	10.35	3086	11.05	3145	11.73
10500	3723	2824	7.52	2859	7.90	2928	8.66	2996	9.44	3062	10.24	3126	11.06	3190	11.89	3252	12.71	3311	13.53	3368	14.32
11500	4078	3087	9.80	3119	10.21	3182	11.04	3244	11.89	3305	12.76	3365	13.64	3424	14.53	3482	15.44	3539	16.34	3594	17.24
12500	4433	3350	12.50	3380	12.95	3438	13.85	3496	14.77	3552	15.70	3608	16.64	3663	17.60	3717	18.58	3771	19.56	3823	20.55
13500	4787	3613	15.67	3641	16.15	3695	17.12	3749	18.11	3801	19.10	3853	20.11	3905	21.14	3956	22.18	4006	23.23	4056	24.29
14500	5142	3877	19.34	3903	19.86	3953	20.89	4004	21.95	4053	23.01	4102	24.09	4150	25.18	4198	26.28	4245	27.39	4292	28.52
15500	5496	4141	23.55	4165	24.10	4213	25.20	4260	29.33	4306	27.46	4352	28.60	4398	29.75	4443	30.92	4488	32.10	4532	33.29
16500	5851	4405	28.33	4428	28.91	4473	30.09	4517	31.27	4561	32.48	4604	33.69	4647	34.91	4690	36.14	4732	37.38		
17500	6206	4669	33.72	4691	34.34	4733	35.58														
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
3600	1277	2305	3.78																		
4400	1560	2344	4.30	2537	5.27	2729	6.36	2914	7.53												
5200	1844	2454	5.23	2613	6.13	2773	7.12	2936	8.24	3261	10.80										
6200	2199	2601	6.50	2766	7.67	2911	8.75	3046	9.81	3313	12.13	3587	14.88	3859	17.96	4120	21.26				
7200	2553	2743	7.75	2905	9.13	3060	10.54	3200	11.89	3446	14.38	3675	16.92	3908	19.77	4144	22.99	4380	26.51	4609	30.24
8200	2908	2924	9.45	3057	10.75	3197	12.24	3339	13.84	3600	17.00	3824	19.89	4029	22.70	4230	25.65	4434	28.93	4642	32.52
9200	3262	3135	11.65	3248	12.95	3363	14.33	3485	15.90	3737	19.41	3975	23.00	4184	26.34	4374	29.49	4554	32.66	4733	35.99
10200	3617	3356	14.25	3461	15.68	3563	17.10	3665	18.58	3882	21.98	4110	25.87	4329	29.88	4529	33.71	4708	37.29		
11200	3972	3580	17.18	3682	18.82	3778	20.39	3871	21.94	4058	25.21	4257	28.98	4465	33.22	4668	37.63				
12200	4326	3806	20.46	3906	22.33	4000	24.12	4089	25.84	4260	29.23	4432	32.84	4615	36.94						
13200	4681	4036	24.16	4132	26.22	4224	28.24	4312	30.18	4475	33.89	4632	37.57								
14200	5035	4268	28.31	4361	30.55	4450	32.77	4536	34.94	4696	39.08										
15200	5390	4505	32.99	4593	35.38	4679	37.77														

**165 RA** 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.

CFM	OV FPM	1/4" SP		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	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1600	567	619	.09	793	.18																
1900	674	670	.12	823	.21	1104	.45														
2200	780	725	.15	865	.25	1117	.50	1348	.80												
2500	887	784	.18	915	.30	1142	.56	1358	.87												
2800	993	845	.22	968	.35	1178	.63	1375	.95	1565	1.31										
3100	1099	908	.27	1024	.41	1222	.71	1403	1.04	1578	1.41	1748	1.82	1906	2.27						
3400	1206	973	.33	1082	.48	1271	.80	1439	1.15	1602	1.53	1761	1.94	1915	2.40	2060	2.88				
3700	1312	1039	.39	1142	.56	1322	.90	1482	1.27	1634	1.66	1782	2.08	1928	2.54	2070	3.04	2204	3.56		
4000	1418	1107	.47	1204	.64	1376	1.01	1529	1.40	1672	1.81	1811	2.24	1948	2.71	2082	3.21	2214	3.74	2340	4.30
4500	1596	1221	.61	1309	.81	1470	1.22	1614	1.64	1747	2.08	1873	2.54	1997	3.03	2119	3.54	2240	4.08	2359	4.65
5500	1950	1454	1.01	1530	1.24	1670	1.73	1798	2.23	1918	2.74	2030	3.27	2137	3.81	2241	4.38	2344	4.96	2445	5.55
6500	2305	1691	1.56	1757	1.83	1881	2.39	1997	2.98	2105	3.57	2208	4.17	2307	4.78	2401	5.41	2492	6.05	2581	6.70
7500	2660	1932	2.30	1990	2.60	2101	3.24	2205	3.90	2304	4.58	2399	5.26	2490	5.95	2578	6.65	2662	7.36	2744	8.07
8500	3014	2175	3.25	2227	3.59	2327	4.30	2421	5.03	2512	5.79	2600	6.56	2684	7.33	2766	8.11	2845	8.89	2922	9.69
9500	3369	2419	4.44	2466	4.82	2557	5.60	2643	6.40	2727	7.23	2808	8.08	2887	8.94	2963	9.81	3037	10.68	3109	11.55
10500	3723	2664	5.91	2707	6.33	2790	7.18	2870	8.05	2947	8.95	3023	9.87	3096	10.81	3167	11.76	3237	12.71	3305	13.67
11500	4078	2910	7.67	2949	8.13	3026	9.05	3100	10.00	3172	10.97	3242	11.96	3311	12.97	3378	14.00	3443	15.03	3508	16.08
12500	4433	3156	9.77	3192	10.26	3263	11.26	3333	12.28	3400	13.32	3466	14.38	3530	15.46	3593	16.56				
13500	4787	3403	12.21	3436	12.74	3503	13.82	3567	14.92	3631	16.03										
14500	5142	3650	15.05																		
CFM	OV FPM	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		10" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
4000	1418	2460	4.87																		
4400	1560	2473	5.17	2587	5.79	2696	6.42														
4800	1702	2490	5.49	2601	6.12	2708	6.78	2813	7.45	2913	8.14										
5200	1844	2517	5.86	2621	6.50	2725	7.16	2826	7.85	2926	8.56	3023	9.28	3116	10.03						
5600	1986	2555	6.28	2653	6.93	2750	7.60	2846	8.29	2942	9.01	3037	9.75	3129	10.51	3220	11.28	3308	12.08		
6000	2128	2601	6.74	2693	7.40	2785	8.08	2876	8.78	2967	9.51	3057	10.25	3146	11.02	3234	11.81	3321	12.62	3409	14.29
6600	2340	2683	7.51	2768	8.20	2853	8.91	2937	9.63	3020	10.37	3103	11.13	3186	11.90	3268	12.70	3350	13.52	3512	15.22
7200	2553	2775	8.35	2855	9.08	2934	9.82														

## 182

### DOUBLE WIDTH

Wheel Diameter: 17-13/16 Outlet Area: 3.45 sq. ft.

RPM

**4071**

CFM	OV FPM	1/4" SP		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	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1800	522	541	.10	684	.18	962	.49	1148	.77			1491	1.74	1623	2.16	1785	3.08	1889	3.55	1993	4.08
2500	725	638	.16	760	.26	1071	.74	1227	1.06	1358	1.37	1582	2.27	1684	2.65	1798	3.43	1892	3.92	1979	4.39
3500	1014	807	.31	897	.44	1197	1.05	1334	1.43	1469	1.87	1690	2.89	1798	3.43	1892	3.92	1979	4.39	2061	4.87
4500	1304	984	.55	1064	.72	1197	1.05	1334	1.43	1469	1.87	1690	2.89	1798	3.43	1892	3.92	1979	4.39	2061	4.87
5500	1594	1168	.90	1237	1.11	1359	1.53	1464	1.91	1574	2.36	1690	2.89	1798	3.43	1892	3.92	1979	4.39	2061	4.87
6500	1884	1357	1.39	1416	1.63	1528	2.14	1625	2.62	1714	3.07	1804	3.57	1901	4.15	1999	4.79	2092	5.42	2176	6.02
7500	2174	1548	2.04	1600	2.32	1700	2.90	1793	3.48	1876	4.02	1953	4.54	2029	5.09	2110	5.70	2195	6.39	2280	7.12
8500	2464	1741	2.88	1787	3.19	1877	3.84	1964	4.50	2044	5.16	2117	5.77	2185	6.36	2252	6.96	2320	7.60	2392	8.31
9500	2754	1935	3.94	1977	4.28	2059	4.99	2138	5.73	2213	6.48	2284	7.20	2350	7.90	2412	8.56	2472	9.22	2532	9.90
10500	3043	2130	5.23	2169	5.61	2243	6.39	2316	7.19	2386	8.01	2454	8.84	2518	9.64	2578	10.42	2635	11.16	2691	11.88
11500	3333	2326	6.79	2361	7.20	2430	8.05	2497	8.91	2562	9.80	2626	10.71	2688	11.61	2746	12.50	2803	13.35	2856	14.18
12500	3623	2522	8.64	2555	9.09	2618	10.00	2681	10.93	2741	11.88	2801	12.86	2860	13.84	2916	14.82	2971	15.79	3023	16.73
13500	3913	2719	10.80	2749	11.29	2809	12.26	2866	13.26	2923	14.28	2979	15.32	3035	16.38	3089	17.44	3141	18.50	3192	19.55
14500	4203	2916	13.31	2944	13.82	3000	14.87	3054	15.94	3107	17.02	3160	18.12	3212	19.24	3263	20.38	3314	21.52	3363	22.66
15500	4493	3114	16.18	3140	16.73	3192	17.84	3243	18.98	3293	20.12	3343	21.29	3392	22.48	3441	23.68	3488	24.90	3536	26.12
16500	4783	3311	19.44	3336	20.02	3385	21.21	3433	22.41	3481	23.62	3528	24.85	3574	26.10	3620	27.37	3666	28.65	3711	29.95
17500	5072	3509	23.11	3532	23.73	3579	24.98	3624	26.26	3669	27.54	3714	28.83	3758	30.15	3802	31.48	3845	32.83	3888	34.19
18500	5362	3707	27.23	3729	27.88	3773	29.20	3816	30.54	3859	31.89	3901	33.26	3943	34.64	3985	36.03	4026	37.44	4067	38.87
19500	5652	3905	31.81	3926	32.50	3968	33.89	4009	35.29	4050	36.72	4090	38.15	4130	39.59	4170	41.05	4209	42.53	4248	44.01
21500	6232	4301	42.47	4320	43.23																
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
4200	1217	2093	4.50																		
4600	1333	2097	4.70	2292	5.91																
5000	1449	2110	4.94	2297	6.15	2476	7.47														
5400	1565	2135	5.27	2308	6.44	2481	7.75	2648	9.17												
6400	1855	2242	6.46	2385	7.56	2527	8.75	2673	10.09	2964	13.18										
7400	2145	2352	7.74	2501	9.11	2632	10.38	2755	11.66	3003	14.49	3256	17.84	3505	21.58						
8400	2435	2455	8.94	2606	10.59	2746	12.21	2871	13.72	3095	16.60	3311	19.69	3533	23.23	3756	27.20	3974	31.48	4185	35.97
9400	2725	2579	10.44	2712	12.07	2848	13.88	2979	15.73	3211	19.20	3412	22.42	3605	25.74	3801	29.44	4000	33.56	4199	38.03
10400	3014	2729	12.40	2840	13.94	2959	15.70	3081	17.64	3320	21.72	3529	25.56	3714	29.13	3890	32.73	4064	36.55	4242	40.78
12400	3594	3057	17.37	3152	19.10	3244	20.83	3336	22.62	3532	26.72	3739	31.42	3938	36.30	4120	40.98	4283	45.35		
14400	4174	3394	23.46	3485	25.64	3571	27.72	3653	29.73	3811	33.76	3974	38.16	4148	43.19	4325	48.70				
16400	4754	3737	30.84	3824	33.42	3907	35.95	3986	38.40	4133	43.06	4273	47.62								
18400	5333	4090	39.81	4170	42.70	4248	45.60	4324	48.47												

## 182 RA

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.

CFM	OV FPM	1/4" SP		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	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1800	522	546	.10	714	.21																
2500	725	636	.16	768	.28	1008	.58														
3200	928	738	.24	854	.39	1052	.72	1240	1.10	1417	1.53										
3900	1130	848	.35	951	.53	1127	.90	1287	1.31	1441	1.76	1592	2.26	1735	2.81						
4600	1333	964	.50	1055	.71	1217	1.13	1360	1.58	1495	2.07	1627	2.58	1756	3.14	1884	3.74	2005	4.38	2121	5.04
5300	1536	1083	.69	1165	.92	1314	1.41	1447	1.91	1569	2.43	1686	2.98	1802	3.56	1915	4.18	2028	4.83	2138	5.51
6000	1739	1204	.94	1279	1.19	1416	1.73	1540	2.29	1655	2.86	1763	3.45	1867	4.07	1970	4.71	2071	5.38	2171	6.08
6700	1942	1327	1.24	1396	1.52	1522	2.11	1639	2.72	1747	3.35	1849	3.99	1946	4.65	2040	5.33	2133	6.03	2224	6.76
7400	2145	1451	1.60	1515	1.90	1633	2.55	1742	3.22	1844	3.90	1941	4.59	2033	5.30	2122	6.02	2208	6.77	2292	7.54
8100	2348	1577	2.03	1635	2.36	1745	3.06	1848	3.79	1945	4.53	2038	5.27	2126	6.03	2210	6.80	2292	7.59	2371	8.40
8800	2551	1703	2.54	1758	2.90	1861	3.64	1958	4.43	2050	5.23	2137	6.03	2222	6.84	2303	7.66	2381	8.50	2457	9.35
9500	2754	1830	3.14	1881	3.52	1978	4.31	2069	5.15	2157	6.00	2241	6.87	2321	7.74	2399	8.61	2474	9.50	2547	10.40
10500	3043	2012	4.14	2059	4.56	2148	5.43	2233	6.33	2314	7.26	2393	8.21	2469	9.17	2542	10.13	2613	11.10	2682	12.07
11500	3333	2195	5.35	2238	5.81	2320	6.75	2400	7.72	2476	8.72	2549	9.75	2621	10.79	2690	11.84	2758	12.89	2823	13.94
12500	3623	2379	6.78	2418	7.28	2495	8.29	2569	9.34	2640	10.41	2710	11.51	2777	12.62	2843	13.76	2907	14.90	2970	16.04
13500	3913	2563	8.46	2600	8.99	2671	10.08	2741	11.19	2808	12.34	2873	13.50	2937	14.70	3000	15.91	3060	17.13	3120	18.36
14500	4203	2747	10.39	2782	10.96	2849	12.13	2914	13.31	2978	14.53	3040	15.76	3100	17.03	3159	18.31	3217	19.61	3274	20.92
15500	4493	2932	12.61	2964	13.22	3028	14.45	3089	15.72	3149	17.00	3208	18.31	3266	19.64	3322	20.99				
16500	4783	3117	15.12	3148	15.77	3207	17.08	3266	18.42	3323	19.78										
17500	5072	3302	17.95	3331	18.64																
CFM	OV FPM	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		10" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
5000	1449	2239	6.01																		
5750	1667	2260	6.59	2361	7.36	2459	8.14	2554	8.96	2645	9.79										
6500	1884	2300	7.30	2392	8.07	2484	8.88	2574	9.71	2664	10.58	2751	11.46	2836	12.37	2919	13.30	2999	14.25	3078	15.16
7250	2101	2361	8.14	2446	8.94	2529	9.76	2612	10.61	2694	11.48	2776	12.38	2857	13.31	2938	14.27	3017	15.25	3170	17.27
8000	2319	2438	9.09	2515	9.93	2592	10.78	2669	11.66	2744	12.55	2820	13.47	2895	14.41	2969	15.38	3044	16.37	3191	18.43
8750	2536	2525	1																		

<b>200</b>		<b>DOUBLE WIDTH</b>																<b>RPM 3592</b>			
		<b>Wheel Diameter: 19-11/16 Outlet Area: 4.14 sq. ft.</b>																			
<b>CFM</b>	<b>OV FPM</b>	<b>1/4" SP</b>		<b>1/2" SP</b>		<b>1" SP</b>		<b>1-1/2" SP</b>		<b>2" SP</b>		<b>2-1/2" SP</b>		<b>3" SP</b>		<b>3-1/2" SP</b>		<b>4" SP</b>		<b>4-1/2" SP</b>	
		<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>
2200	531	490	.12	619	.22	851	.52														
2600	628	526	.15	653	.27	867	.59	1039	.93												
3000	725	571	.19	684	.32	908	.71	1053	1.03	1200	1.44										
3500	845	633	.25	726	.38	949	.84	1087	1.19	1213	1.57	1343	2.04	1467	2.56						
4000	966	696	.33	779	.48	987	.96	1130	1.39	1246	1.77	1358	2.21	1473	2.72	1586	3.29				
4500	1087	760	.43	839	.59	1031	1.10	1170	1.57	1288	2.03	1390	2.46	1491	2.94	1595	3.49	1698	4.10	1798	4.75
5000	1208	825	.54	901	.73	1204	1.75	1302	2.22	1407	2.78	1514	3.41	1610	4.03	1694	4.59	1772	5.15	1849	5.73
6500	1570	1028	1.01	1092	1.27	1391	2.66	1479	3.25	1559	3.81	1640	4.42	1726	5.13	1815	5.91	1898	6.69	1975	7.44
8000	1932	1238	1.74	1291	2.04	1584	3.85	1667	4.59	1741	5.29	1809	5.95	1875	6.63	1944	7.36	2016	8.19	2090	9.08
9500	2295	1451	2.77	1496	3.12	1783	5.39	1858	6.25	1928	7.11	1993	7.93	2053	8.71	2111	9.47	2168	10.25	2227	11.08
11000	2657	1666	4.16	1706	4.56	1987	7.35	2054	8.31	2119	9.30	2181	10.27	2240	11.22	2294	12.12	2347	13.00	2397	13.86
12500	3019	1883	5.97	1918	6.42	2204	9.79	2255	10.85	2315	11.94	2373	13.04	2428	14.14	2481	15.21	2532	16.25	2580	17.25
14000	3382	2101	8.26	2133	8.77	2405	12.77	2460	13.93	2514	15.11	2568	16.32	2620	17.54	2671	18.76	2720	19.96	2767	21.13
15500	3744	2319	11.09	2348	11.64	2617	16.35	2668	17.60	2718	18.88	2767	20.18	2816	21.51	2863	22.85	2910	24.19	2955	25.51
17000	4106	2538	14.51	2565	15.11	2830	20.57	2877	21.93	2924	23.30	2969	24.70	3015	26.12	3059	27.57	3103	29.02	3147	30.48
18500	4469	2758	18.58	2782	19.23	3045	25.50	3089	26.96	3132	28.43	3175	29.93	3217	31.45	3259	32.99	3300	34.55	3341	36.12
20000	4831	2978	23.35	3000	24.06	3260	31.19	3301	32.76	3342	34.33	3382	35.93	3421	37.54	3461	39.18	3500	40.83	3538	42.51
21500	5193	3198	28.89	3219	29.65	3476	37.71	3515	39.38	3553	41.06	3591	42.75	3628	44.46	3665	46.20	3702	47.95	3738	49.71
23000	5556	3418	35.25	3437	36.07	3693	45.11	3730	46.87	3766	48.66	3801	50.45	3836	52.26						
24500	5918	3638	42.49	3657	43.36																

<b>CFM</b>	<b>OV FPM</b>	<b>5" SP</b>		<b>6" SP</b>		<b>7" SP</b>		<b>8" SP</b>		<b>10" SP</b>		<b>12" SP</b>		<b>14" SP</b>		<b>16" SP</b>		<b>18" SP</b>		<b>20" SP</b>	
		<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>
6000	1449	1907	5.97	2078	7.45																
6500	1570	1927	6.36	2086	7.79	2244	9.41	2396	11.13												
7000	1691	1960	6.87	2105	8.24	2253	9.80	2400	11.54												
7500	1812	2001	7.49	2135	8.81	2271	10.31	2409	11.99	2680	15.79										
8000	1932	2045	8.14	2174	9.51	2299	10.95	2427	12.57	2685	16.31	2935	20.50								
9000	2174	2127	9.42	2261	11.08	2379	12.63	2491	14.18	2716	17.66	2946	21.76	3172	26.33						
10000	2415	2202	10.62	2340	12.59	2465	14.48	2576	16.23	2780	19.67	2982	23.50	3189	27.91	3395	32.80	3595	38.02		
11000	2657	2288	12.00	2416	14.03	2543	16.19	2660	18.31	2865	22.20	3049	25.99	3232	30.12	3419	34.78	3608	39.93	3794	45.46
13000	3140	2506	15.84	2603	17.72	2706	19.84	2814	22.21	3028	27.29	3220	32.20	3388	36.72	3545	41.17	3699	45.82	3855	50.88
15000	3623	2750	20.87	2836	22.96	2920	25.05	3005	27.25	3186	32.30	3374	38.05	3554	43.93	3717	49.54	3864	54.77		
17000	4106	2999	26.82	3083	29.35	3161	31.75	3236	34.11	3385	38.96	3541	44.45	3707	50.70						
19000	4589	3253	33.78	3333	36.73	3409	39.60	3482	42.35	3617	47.64	3750	53.01								
21000	5072	3511	41.94	3587	45.25	3660	48.53	3731	51.74	3862	57.85										

**200 RA** 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.

<b>CFM</b>	<b>OV FPM</b>	<b>1/4" SP</b>		<b>1/2" SP</b>		<b>1" SP</b>		<b>1-1/2" SP</b>		<b>2" SP</b>		<b>2-1/2" SP</b>		<b>3" SP</b>		<b>3-1/2" SP</b>		<b>4" SP</b>		<b>4-1/2" SP</b>	
		<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>
2200	531	495	.13	646	.25																
2800	676	550	.17	676	.31	907	.67														
3400	821	612	.23	725	.40	924	.77	1111	1.22												
4000	966	679	.31	782	.50	959	.90	1125	1.37	1284	1.90										
4600	1111	749	.41	844	.62	1007	1.06	1155	1.55	1299	2.10	1438	2.70	1568	3.36						
5200	1256	822	.52	909	.76	1061	1.24	1197	1.77	1327	2.34	1454	2.95	1579	3.63	1697	4.35				
5800	1401	896	.66	977	.92	1120	1.45	1247	2.02	1366	2.62	1483	3.26	1597	3.94	1709	4.68	1819	5.46	1923	6.28
6400	1546	972	.83	1047	1.11	1182	1.69	1303	2.30	1414	2.94	1522	3.61	1627	4.31	1731	5.06	1833	5.85	1934	6.69
7000	1691	1048	1.03	1119	1.33	1246	1.96	1362	2.61	1468	3.29	1568	4.00	1666	4.73	1762	5.50	1857	6.31	1952	7.15
8000	1932	1178	1.44	1242	1.77	1358	2.49	1465	3.22	1564	3.96	1657	4.73	1746	5.53	1833	6.35	1918	7.20	2002	8.08
9000	2174	1310	1.95	1368	2.32	1474	3.11	1573	3.92	1666	4.75	1754	5.59	1838	6.45	1918	7.34	1996	8.25	2072	9.18
10000	2415	1443	2.57	1496	2.98	1594	3.84	1687	4.74	1774	5.65	1856	6.57	1936	7.51	2012	8.46	2085	9.43	2156	10.42
11000	2657	1577	3.33	1626	3.78	1717	4.71	1803	5.68	1885	6.68	1963	7.69	2038	8.70	2111	9.72	2181	10.76	2249	11.82
12000	2899	1712	4.24	1757	4.72	1842	5.72	1923	6.77	2000	7.84	2074	8.94	2145	10.03	2214	11.14	2281	12.25	2346	13.38
13000	3140	1848	5.30	1889	5.82	1969	6.89	2045	8.01	2117	9.16	2188	10.33	2256	11.52	2321	12.71	2385	13.90	2447	15.11
14000	3382	1983	6.53	2022	7.09	2097	8.23	2169	9.42	2237	10.64	2304	11.89	2369	13.16	2432	14.44	2493	15.72	2552	17.00
15000	3623	2120	7.94	2156	8.54	2226	9.76	2294	11.02	2360	12.31	2423	13.63	2485	14.98	2545	16.34	2603	17.71	2660	19.08
16000	3865	2256	9.55	2290	10.19	2357	11.48	2421	12.81	2483	14.17	2544	15.57	2603	16.99	2660	18.43	2716	19.89	2771	21.35
17000	4106	2393	11.37	2425	12.05	2488	13.41	2549	14.82	2609	16.25	2666	17.71	2723	19.21	2778	20.72	2832	22.26	2885	23.80
18000	4348	2530	13.41	2561	14.12	2620	15.57	2679	17.04	2735	18.55	2790	20.08	2844	21.65	2897	23.24	2949	24.85		

<b>CFM</b>	<b>OV FPM</b>	<b>5" SP</b>		<b>5-1/2" SP</b>		<b>6" SP</b>		<b>6-1/2" SP</b>		<b>7" SP</b>		<b>7-1/2" SP</b>		<b>8" SP</b>		<b>8-1/2" SP</b>		<b>9" SP</b>		<b>10" SP</b>	
		<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>
6000	1449	2025	7.27																		
6800	1643	2040	7.88	2132	8.81	2222	9.76	2308	10.74												
7600	1836	2066	8.59	2153	9.53	2238	10.51	2322	11.52	2404	12.57	2484	13.64	2561	14.73						



**SIZE 222**

**222** **DOUBLE WIDTH** **RPM 3225**  
 Wheel Diameter: 21-9/16 Outlet Area: 5.12 sq. ft.

CFM	OV FPM	1/4" SP		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	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
2600	508	444	.14	562	.25																
3000	586	470	.16	588	.30	774	.61														
3400	664	503	.20	612	.35	783	.67	947	1.09												
4400	859	596	.33	677	.49	841	.90	969	1.29	1097	1.77	1222	2.34								
5400	1055	692	.51	766	.71	900	1.14	1031	1.66	1136	2.12	1239	2.64	1344	3.26	1447	3.94				
6400	1250	792	.75	860	1.00	972	1.45	1090	2.02	1201	2.64	1294	3.19	1380	3.75	1467	4.39	1555	5.10	1643	5.88
7400	1445	895	1.06	956	1.35	1061	1.89	1155	2.44	1259	3.12	1358	3.84	1443	4.50	1519	5.14	1593	5.79	1668	6.50
8400	1641	1000	1.46	1055	1.78	1154	2.43	1239	3.01	1324	3.66	1415	4.44	1504	5.26	1585	6.05	1656	6.78	1723	7.50
9400	1836	1106	1.95	1156	2.31	1249	3.04	1330	3.73	1404	4.39	1480	5.12	1562	5.98	1643	6.90	1720	7.81	1789	8.67
10400	2031	1214	2.56	1259	2.95	1346	3.76	1424	4.55	1494	5.29	1560	6.02	1629	6.83	1702	7.76	1777	8.76	1849	9.79
12400	2422	1431	4.15	1469	4.60	1544	5.54	1615	6.52	1682	7.47	1742	8.37	1799	9.23	1854	10.11	1911	11.04	1971	12.08
14400	2813	1649	6.32	1683	6.84	1749	7.91	1812	9.02	1873	10.16	1931	11.28	1985	12.35	2036	13.37	2085	14.37	2132	15.37
16400	3203	1870	9.16	1899	9.75	1958	10.96	2014	12.20	2070	13.47	2123	14.76	2175	16.04	2224	17.29	2271	18.50	2315	19.66
18400	3594	2091	12.77	2117	13.43	2170	14.77	2221	16.14	2271	17.54	2320	18.97	2369	20.42	2415	21.87	2460	23.29	2504	24.68
20400	3984	2312	17.24	2337	17.97	2384	19.44	2431	20.94	2477	22.48	2522	24.04	2566	25.63	2610	27.23	2653	28.84	2694	30.43
22400	4375	2535	22.66	2557	23.46	2600	25.07	2643	26.71	2685	28.37	2727	30.06	2768	31.77	2808	33.51	2848	35.27	2888	37.04
24400	4766	2757	29.13	2777	30.00	2817	31.74	2857	33.52	2896	35.31	2935	37.13	2973	38.97	3010	40.84	3048	42.73	3085	44.65
26400	5156	2980	36.74	2999	37.67	3036	39.56	3073	41.47	3109	43.40	3145	45.35	3180	47.32	3216	49.32	3250	51.33	3285	53.38
28400	5547	3203	45.58	3220	46.58	3255	48.60	3289	50.65	3323	52.72	3357	54.80	3390	56.90	3423	59.03	3456	61.18	3488	63.35
30400	5938	3426	55.74	3442	56.82	3475	58.98	3507	61.16	3539	63.37	3571	65.59	3602	67.82						

**222 RA** 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.

CFM	OV FPM	1/4" SP		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	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
2600	508	449	.15	589	.30																
3200	625	490	.19	609	.36	826	.78														
3800	742	536	.25	642	.43	835	.87														
4400	859	585	.32	683	.52	855	.99	1018	1.53												
5000	977	636	.40	728	.63	886	1.13	1032	1.69	1174	2.34										
6000	1172	726	.57	808	.84	951	1.41	1078	2.02	1200	2.69	1320	3.43	1436	4.23	1545	5.09				
7000	1367	820	.80	894	1.11	1024	1.75	1140	2.43	1248	3.15	1354	3.92	1458	4.74	1560	5.62	1660	6.56	1755	7.55
8000	1563	916	1.09	983	1.43	1103	2.16	1211	2.91	1311	3.69	1406	4.51	1499	5.37	1590	6.28	1681	7.24	1770	8.25
9000	1758	1014	1.45	1075	1.83	1186	2.64	1288	3.46	1381	4.31	1469	5.20	1554	6.12	1637	7.07	1719	8.06	1800	9.09
10000	1953	1113	1.89	1169	2.31	1272	3.19	1368	4.10	1456	5.03	1540	5.98	1619	6.96	1696	7.97	1771	9.01	1846	10.09
11000	2148	1213	2.42	1265	2.87	1361	3.83	1451	4.83	1535	5.84	1614	6.86	1690	7.90	1763	8.98	1833	10.08	1902	11.21
12000	2344	1314	3.05	1362	3.54	1452	4.57	1537	5.64	1616	6.74	1692	7.84	1765	8.96	1834	10.10	1901	11.26	1966	12.46
13000	2539	1416	3.79	1460	4.31	1545	5.41	1625	6.56	1701	7.74	1773	8.93	1842	10.13	1909	11.34	1973	12.57	2036	13.83
14000	2734	1518	4.64	1560	5.21	1640	6.37	1715	7.60	1787	8.86	1856	10.13	1922	11.41	1987	12.71	2049	14.01	2109	15.33
15000	2930	1620	5.62	1660	6.22	1735	7.46	1807	8.75	1875	10.09	1941	11.45	2005	12.82	2067	14.19	2126	15.58	2184	16.97
16000	3125	1723	6.74	1760	7.37	1832	8.69	1900	10.05	1965	11.46	2028	12.89	2090	14.35	2149	15.81	2206	17.28	2262	18.75
18000	3516	1929	9.40	1963	10.11	2027	11.57	2089	13.08	2149	14.62	2207	16.21	2264	17.83	2319	19.46	2373	21.10	2425	22.74
20000	3906	2137	12.71	2167	13.50	2226	15.11	2283	16.76	2338	18.44	2391	20.17	2444	21.93	2495	23.72	2545	25.53	2594	27.35
22000	4297	2344	16.74	2372	17.60	2426	19.36	2479	21.16	2530	22.99	2579	24.85	2628	26.75	2676	28.68	2723	30.64	2769	32.62
24000	4688	2553	21.55	2578	22.49	2628	24.40	2677	26.34	2724	28.32	2771	30.33								

CFM	OV FPM	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		10" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
7500	1465	1851	8.93	1937	10.01																
8500	1660	1868	9.72	1951	10.83	2032	11.99	2110	13.19	2186	14.41										
9500	1855	1898	10.66	1975	11.79	2050	12.97	2125	14.19	2199	15.46	2271	16.76	2342	18.09	2410	19.44	2476	20.83		
10500	2051	1943	11.76	2014	12.93	2083	14.13	2152	15.36	2221	16.64	2289	17.96	2357	19.33	2424	20.72	2489	22.15	2617	25.10
11500	2246	1999	13.01	2064	14.22	2129	15.46	2193	16.73	2257	18.04	2320	19.37	2383	20.75	2445	22.16	2508	23.61	2631	26.62
12500	2441	2063	14.37	2124	15.65	2184	16.95	2244	18.27	2303	19.61	2362	20.99	2421	22.39	2480	23.82	2538	25.29	2653	28.33
13500	2637	2131	15.87	2190	17.21	2247	18.57	2303	19.95	2359	21.35	2415	22.78	2470	24.23	2524	25.70	2579	27.20	2687	30.28
14500	2832	2204	17.51	2260	18.91	2315	20.33	2368	21.77	2422	23.24	2474	24.72	2526	26.23	2578	27.75	2629	29.30	2731	32.46
15500	3027	2279	19.29	2333	20.76	2386	22.24	2438	23.75	2489	25.27	2539	26.82	2589	28.39	2638	29.97	2686	31.58	2783	34.85
16500	3223	2356	21.22	2409	22.76	2460	24.31	2510	25.88	2560	27.47	2608	29.08	2656	30.71	2703	32.35	2750	34.02		
17500	3418	2435	23.30	2486	24.92	2536	26.55	2585	28.19	2633	29.84	2680	31.51	2726	33.20	2772	34.91				
18500	3613	2517	25.53	2566	27.23	2614	28.93	2662	30.65	2709	32.38	2754	34.12								
19500	3809	2600	27.91	2648	29.70	2694	31.49	2741	33.28	2786	35.09										



**SIZE 245**

245		DOUBLE WIDTH Wheel Diameter: 24 Outlet Area: 6.21 sq. ft.																RPM		2852		
CFM	OV FPM	1/4" SP		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		
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	
3500	564	399	.19	502	.34																	
5000	805	485	.34	567	.53	712	.97	836	1.47													
6500	1047	583	.57	650	.81	776	1.34	888	1.92	986	2.52	1080	3.18	1171	3.91							
8000	1288	686	.91	745	1.21	850	1.81	952	2.48	1046	3.19	1130	3.90	1208	4.65	1286	5.45					
9500	1530	793	1.37	845	1.73	938	2.44	1025	3.17	1111	3.97	1193	4.81	1268	5.64	1338	6.49	1405	7.37	1435	7.21	8.28
11000	1771	902	1.99	948	2.40	1033	3.22	1110	4.05	1185	4.90	1260	5.82	1333	6.78	1402	7.75	1466	8.72	1526	9.69	
13000	2093	1050	3.10	1090	3.58	1165	4.55	1235	5.52	1300	6.50	1363	7.49	1426	8.53	1490	9.62	1552	10.75	1612	11.90	
15000	2415	1200	4.58	1235	5.13	1302	6.25	1365	7.37	1425	8.49	1482	9.62	1537	10.75	1592	11.91	1646	13.11	1701	14.37	
17000	2738	1351	6.48	1382	7.11	1443	8.38	1500	9.65	1555	10.92	1608	12.19	1658	13.46	1708	14.74	1757	16.03	1805	17.35	
19000	3060	1502	8.87	1531	9.58	1586	10.99	1639	12.41	1689	13.83	1738	15.25	1785	16.67	1831	18.09	1876	19.51	1920	20.94	
21000	3382	1655	11.81	1681	12.59	1732	14.15	1780	15.71	1827	17.28	1872	18.85	1916	20.41	1959	21.98	2001	23.55	2042	25.12	
23000	3704	1807	15.35	1832	16.20	1878	17.90	1923	19.61	1967	21.33	2009	23.05	2051	24.76	2091	26.48	2131	28.20	2169	29.92	
25000	4026	1961	19.54	1983	20.46	2026	22.32	2068	24.18	2109	26.04	2149	27.90	2188	29.77	2226	31.63	2263	33.50	2300	35.37	
27000	4348	2114	24.45	2135	25.45	2175	27.44	2214	29.45	2253	31.46	2290	33.48	2327	35.49	2363	37.50	2398	39.52	2433	41.53	
29000	4670	2268	30.13	2287	31.20	2325	33.35	2362	35.50	2398	37.66	2433	39.82	2468	41.98	2502	44.14	2535	46.31	2568	48.47	
31000	4992	2421	36.64	2439	37.78	2475	40.08	2510	42.37	2544	44.68	2577	46.99	2610	49.30	2643	51.61	2674	53.92	2706	56.24	
33000	5314	2575	44.04	2592	45.26	2626	47.69	2659	50.14	2691	52.59	2723	55.04	2754	57.50	2785	59.96	2815	62.43	2845	64.89	
35000	5636	2729	52.38	2745	53.67	2777	56.25	2808	58.85	2839	61.44	2869	64.04	2899	66.65	2928	69.26	2957	71.87	2986	74.48	
37000	5958	2883	61.72	2899	63.09	2929	65.82	2958	68.55	2988	71.30	3016	74.05	3045	76.80							
39000	6280	3038	72.12	3052	73.56																	
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	
9000	1449	1523	8.85	1654	10.90																	
10500	1691	1566	10.17	1684	12.26	1799	14.51	1911	16.90													
12000	1932	1626	11.82	1734	13.99	1839	16.27	1941	18.70	2141	23.98											
13500	2174	1691	13.68	1796	16.05	1895	18.46	1989	20.94	2173	26.28	2351	32.13	2523	38.41							
15000	2415	1756	15.66	1861	18.30	1958	20.94	2049	23.59	2220	29.07	2386	34.97	2548	41.35	2705	48.14					
17000	2738	1853	18.71	1949	21.55	2044	24.52	2135	27.52	2301	33.51	2454	39.64	2601	46.10	2746	52.97	2889	60.26	3028	67.91	
19000	3060	1963	22.39	2050	25.37	2136	28.49	2222	31.75	2387	38.45	2536	45.14	2676	51.91	2809	58.92	2940	66.26			
21000	3382	2083	26.70	2162	29.88	2240	33.15	2318	36.54	2474	43.70	2623	51.11	2760	58.50	2889	65.94	3012	73.53			
23000	3704	2207	31.64	2281	35.09	2353	38.57	2425	42.12	2567	49.54	2709	57.43	2846	65.54	2975	73.65					
25000	4026	2336	37.24	2406	40.98	2474	44.73	2540	48.50	2671	56.25	2802	64.39	2934	72.98							
27000	4348	2467	43.55	2533	47.59	2598	51.63	2661	55.67	2784	63.85	2905	72.29	3027	81.13							
29000	4670	2601	50.64	2664	54.97	2726	59.31	2786	63.65	2903	72.35	3017	81.19									
31000	4992	2737	58.55	2797	63.18	2856	67.81	2914	72.45	3026	81.71											

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.

245 RA		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.																				
CFM	OV FPM	1/4" SP		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		
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	
3500	564	402	.20	522	.39																	
5000	805	477	.32	571	.56	739	1.11															
6500	1047	565	.51	645	.80	783	1.42	912	2.13	1038	2.97											
8000	1288	660	.79	728	1.11	851	1.86	960	2.63	1065	3.47	1170	4.42	1272	5.47	1365	6.54					
9500	1530	758	1.16	818	1.54	928	2.38	1028	3.28	1120	4.19	1209	5.16	1297	6.20	1385	7.35	1471	8.58	1554	9.85	
11000	1771	859	1.65	913	2.10	1011	3.00	1103	4.02	1188	5.07	1268	6.12	1346	7.21	1422	8.35	1498	9.57	1574	10.88	
12500	2013	961	2.26	1010	2.79	1099	3.79	1183	4.87	1263	6.05	1338	7.24	1409	8.43	1478	9.64	1546	10.90	1613	12.20	
14000	2254	1065	3.03	1110	3.62	1192	4.75	1269	5.90	1343	7.15	1414	8.48	1481	9.81	1545	11.14	1608	12.48	1669	13.85	
15500	2496	1170	3.96	1211	4.62	1287	5.89	1358	7.13	1426	8.44	1493	9.85	1557	11.31	1618	12.79	1678	14.26	1735	15.74	
17000	2738	1275	5.07	1313	5.80	1384	7.21	1450	8.57	1514	9.95	1576	11.42	1636	12.97	1695	14.57	1752	16.19	1806	17.81	
18500	2979	1381	6.39	1416	7.18	1483	8.74	1545	10.23	1605	11.71	1663	13.23	1720	14.85	1775	16.53	1829	18.27	1882	20.03	
20000	3221	1487	7.92	1520	8.79	1583	10.49	1642	12.12	1698	13.71	1753	15.32	1806	16.99	1858	18.74	1910	20.56	1960	22.43	
21500	3462	1594	9.69	1625	10.63	1684	12.47	1740	14.25	1793	15.97	1845	17.68	1895	19.42	1945	21.22	1993	23.10	2041	25.05	
23000	3704	1701	11.72	1730	12.72	1786	14.70	1839	16.62	1890	18.49	1939	20.32	1987	22.16	2034	24.03	2080	25.96	2125	27.96	
24500	3945	1808	14.03	1835	15.09	1888	17.20	1939	19.27	1987	21.29	2034	23.25	2080	25.20	2125	27.17	2169	29.16	2212	31.22	
26000	4187	1915	16.62	1941	17.75	1992	20.00	2040	22.21	2086	24.37	2131	26.48	2175	28.55	2218	30.62	2260	32.71	2301	34.83	
27500	4428	2023	19.52	2048	20.72	2095	23.10	2141	25.45	2186	27.76	2229	30.01	2271	32.23	2312	34.42	2352	36.61			
29000	4670	2131	22.75	2154	24.02	2200	26.53	2244	29.02	2286	31.47	2328	33.87									
30500	4911	2239	26.33	2261	27.66	2304	30.31	2347	32.93													
32000	5153	2346	30.26																			
CFM	OV FPM	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		10" SP		
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	
11000	1771	1650	12.27	1724	13.72	1794	15.19	1861	16.65													
12000	1932	1668	13.09	1737	14.55	1807	16.09	1874	17.67	1940	19.27	2002	20.87	2061	22.46							
13000	2093	1695	14.10	1759	15.54	1824	17.06	1888	18.65	1952	20.31	2015	22.02	2076	23.75	2134	25.49	2191	27.22			
14000	2254	1730	15.26	1790	16.72	1849	18.22	1909	19.80	1969	21.44	2029	23.16	2088	24.94	2147	26.77	2204	28.63	2314	32.36	
15000																						



**SIZE 270**

<b>270</b>		<b>DOUBLE WIDTH</b>																<b>RPM 2638</b>					
		<b>Wheel Diameter: 26-7/16 Outlet Area: 7.54 sq. ft.</b>																					
<b>CFM</b>	<b>OV FPM</b>	<b>1/4" SP</b>		<b>1/2" SP</b>		<b>1" SP</b>		<b>1-1/2" SP</b>		<b>2" SP</b>		<b>2-1/2" SP</b>		<b>3" SP</b>		<b>3-1/2" SP</b>		<b>4" SP</b>		<b>4-1/2" SP</b>			
		<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>		
4000	531	354	0.2	449	0.4																		
6000	796	437	0.4	512	0.6	644	1.2	758	1.8	898	3.1	983	3.9	1065	4.8								
8000	1061	535	0.7	595	1.0	708	1.7	809	2.4	959	4.0	1034	4.9	1105	5.8	1173	6.8	1241	7.8	1307	8.9	1346	10.5
10000	1326	638	1.2	690	1.6	784	2.3	874	3.1	1025	5.1	1099	6.1	1167	7.2	1229	8.3	1289	9.3	1346	10.5	1406	12.4
12000	1592	746	1.8	791	2.3	873	3.2	950	4.1	1102	6.4	1167	7.5	1231	8.7	1293	10.0	1352	11.2	1406	12.4		
14000	1857	855	2.7	895	3.3	969	4.3	1037	5.4	1190	8.1	1247	9.3	1304	10.6	1360	11.9	1416	13.3	1471	14.7		
16000	2122	966	3.9	1002	4.5	1069	5.7	1131	6.9	1284	10.1	1336	11.4	1387	12.8	1437	14.2	1487	15.6	1537	17.2		
18000	2387	1078	5.4	1110	6.1	1172	7.4	1229	8.7	1381	12.4	1429	13.9	1476	15.4	1522	16.9	1567	18.5	1613	20.0		
20000	2653	1191	7.2	1220	8.0	1277	9.4	1330	10.9	1480	15.2	1526	16.8	1570	18.5	1613	20.1	1655	21.8	1696	23.4		
22000	2918	1304	9.4	1331	10.2	1383	11.9	1433	13.5	1582	18.3	1625	20.1	1667	21.9	1707	23.7	1747	25.5	1786	27.3		
24000	3183	1417	12.1	1443	13.0	1491	14.7	1537	16.5	1685	21.9	1726	23.9	1765	25.8	1804	27.8	1842	29.7	1878	31.7		
26000	3448	1532	15.2	1555	16.1	1600	18.1	1643	20.0	1790	26.1	1829	28.2	1866	30.3	1903	32.3	1939	34.4	1974	36.5		
28000	3714	1646	18.8	1668	19.8	1710	21.9	1751	24.0	1896	30.7	1933	33.0	1969	35.2	2003	37.5	2037	39.7	2071	41.9		
30000	3979	1760	22.9	1781	24.1	1821	26.3	1859	28.5	2004	36.0	2038	38.4	2072	40.8	2105	43.2	2138	45.6	2170	47.9		
32000	4244	1875	27.7	1894	28.9	1932	31.2	1968	33.6	2166	45.1	2198	47.7	2230	50.3	2261	52.9	2292	55.5	2322	58.1		
35000	4642	2047	36.0	2065	37.3	2100	39.9	2133	42.5	2330	55.6	2360	58.5	2390	61.3	2419	64.1	2448	67.0	2476	69.8		
38000	5040	2220	45.8	2236	47.2	2268	50.0	2300	52.8	2496	67.9	2524	70.9	2552	74.0	2579	77.1	2606	80.1	2633	83.2		
41000	5438	2393	57.3	2408	58.8	2438	61.8	2467	64.8	2662	81.9	2689	85.2	2715	88.5	2741	91.7	2766	95.0				
44000	5836	2566	70.5	2580	72.2	2608	75.4	2635	78.7														
47000	6233	2739	85.7	2752	87.5	2778	90.9																
<b>CFM</b>	<b>OV FPM</b>	<b>5" SP</b>		<b>6" SP</b>		<b>7" SP</b>		<b>8" SP</b>		<b>10" SP</b>		<b>12" SP</b>		<b>14" SP</b>		<b>16" SP</b>		<b>18" SP</b>		<b>20" SP</b>			
		<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>		
11000	1459	1384	10.8	1502	13.3																		
13000	1724	1429	12.6	1534	15.1	1637	17.9	1738	20.8														
15000	1989	1490	14.9	1587	17.5	1680	20.3	1771	23.3	1949	29.7	2118	36.7										
17000	2255	1554	17.4	1651	20.4	1739	23.4	1823	26.5	1985	33.0	2144	40.1	2297	47.8								
19000	2520	1621	20.1	1715	23.5	1804	26.8	1886	30.2	2038	37.0	2184	44.2	2326	51.9	2466	60.2	2601	69.0				
21000	2785	1696	23.3	1783	26.8	1868	30.4	1950	34.2	2100	41.6	2238	49.1	2371	56.9	2500	65.3	2628	74.1	2753	83.4		
23000	3050	1780	27.1	1858	30.7	1937	34.4	2015	38.4	2165	46.5	2301	54.6	2427	62.8	2549	71.3	2668	80.2				
26000	3448	1914	33.6	1985	37.5	2054	41.5	2124	45.7	2263	54.5	2397	63.6	2522	72.8	2639	81.9	2750	91.3				
29000	3846	2056	41.3	2121	45.7	2185	50.0	2247	54.5	2372	63.6	2496	73.4	2619	83.5	2735	93.8						
32000	4244	2201	50.3	2263	55.1	2323	59.9	2381	64.7	2495	74.5	2496	84.6	2720	95.2								
35000	4642	2351	60.7	2409	66.0	2465	71.2	2520	76.4	2627	86.9	2607	97.6										
38000	5040	2504	72.6	2558	78.3	2612	84.0	2664	89.7	2764	101.0	2730											
41000	5438	2659	86.2	2711	92.3	2761	98.5																

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.

<b>270 RA</b>																							
<b>CFM</b>	<b>OV FPM</b>	<b>1/4" SP</b>		<b>1/2" SP</b>		<b>1" SP</b>		<b>1-1/2" SP</b>		<b>2" SP</b>		<b>2-1/2" SP</b>		<b>3" SP</b>		<b>3-1/2" SP</b>		<b>4" SP</b>		<b>4-1/2" SP</b>			
		<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>		
4000	531	357	0.22	472	0.45																		
5500	729	411	0.34	500	0.60	665	1.26																
7000	928	473	0.50	551	0.82	687	1.52	817	2.38														
8500	1127	541	0.72	610	1.09	730	1.89	840	2.77	948	3.78	1050	4.91										
10000	1326	613	1.02	673	1.43	783	2.35	881	3.31	974	4.34	1066	5.49	1157	6.77	1242	8.10						
11500	1525	687	1.40	741	1.86	841	2.87	932	3.97	1016	5.07	1097	6.24	1177	7.51	1257	8.90	1335	10.40	1410	11.93		
13000	1724	762	1.87	812	2.40	903	3.48	988	4.70	1066	5.93	1140	7.18	1212	8.49	1283	9.87	1354	11.35	1425	12.95		
14500	1923	838	2.45	884	3.05	968	4.22	1047	5.51	1121	6.89	1191	8.27	1257	9.66	1322	11.09	1386	12.59	1449	14.17		
16000	2122	915	3.14	958	3.82	1036	5.10	1109	6.45	1179	7.93	1246	9.45	1308	10.97	1369	12.50	1428	14.07	1486	15.68		
17500	2321	993	3.97	1033	4.71	1106	6.13	1174	7.55	1240	9.09	1303	10.73	1363	12.40	1421	14.06	1477	15.73	1531	17.42		
19500	2586	1098	5.28	1134	6.12	1201	7.73	1264	9.28	1325	10.90	1383	12.64	1440	14.46	1495	16.32	1548	18.17	1599	20.03		
21500	2851	1203	6.88	1237	7.81	1299	9.61	1358	11.33	1414	13.06	1468	14.87	1521	16.79	1573	18.79	1623	20.83	1672	22.88		
23500	3117	1309	8.79	1340	9.80	1398	11.79	1453	13.70	1505	15.57	1556	17.48	1606	19.47	1655	21.56	1702	23.73	1749	25.95		
25500	3382	1415	11.03	1444	12.14	1499	14.31	1550	16.41	1599	18.45	1647	20.49	1694	22.57	1739	24.73	1785	26.99	1829	29.33		
27500	3647	1522	13.64	1549	14.83	1600	17.19	1649	19.49	1695	21.72	1740	23.91	1784	26.11	1828	28.36	1870	30.68	1912	33.10		
29500	3912	1629	16.64	1654	17.93	1702	20.47	1748	22.96	1793	25.38	1836	27.74	1877	30.09	1918	32.46	1958	34.87	1998	37.35		
31500	4178	1736	20.07	1760	21.44	1805	24.16	1849	26.84	1891	29.46	1932	32.01	1972	34.53	2011	37.03	2049	39.56	2087	42.14		
33500	4443	1843	23.95	1866	25.41	1909	28.31	1950	31.17	1991	33.98	2030	36.73	2068	39.43	2105	42.10						
35500	4708	1951	28.31	1972	29.86	2013	32.94	2052	35.98	2091	38.98	2128	41.93										
37500	4973	2058	33.17	2078	34.81	2117	38.07																
<b>CFM</b>	<b>OV FPM</b>	<b>5" SP</b>		<b>5-1/2" SP</b>		<b>6" SP</b>		<b>6-1/2" SP</b>		<b>7" SP</b>		<b>7-1/2" SP</b>		<b>8" SP</b>		<b>8-1/2" SP</b>		<b>9" SP</b>		<b>10" SP</b>			
		<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>		
13000	1724	1494	14.63	1562	16.36	1625	18.10		</														



**SIZE 300**

<b>300</b>		<b>DOUBLE WIDTH</b>																<b>RPM 2359</b>			
		<b>Wheel Diameter: 29-1/8 Outlet Area: 9.31 sq. ft.</b>																			
<b>CFM</b>	<b>OV FPM</b>	<b>1/4" SP</b>		<b>1/2" SP</b>		<b>1" SP</b>		<b>1-1/2" SP</b>		<b>2" SP</b>		<b>2-1/2" SP</b>		<b>3" SP</b>		<b>3-1/2" SP</b>		<b>4" SP</b>		<b>4-1/2" SP</b>	
		<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>
5000	537	325	0.3	410	0.5																
7000	752	386	0.4	458	0.7	579	1.4	684	2.1												
9000	967	458	0.7	516	1.1	625	1.8	718	2.6	802	3.5	883	4.5								
11000	1182	534	1.1	585	1.5	677	2.4	765	3.3	843	4.3	913	5.3	982	6.4	1049	7.6	1114	8.8		
13000	1396	613	1.7	658	2.2	739	3.1	815	4.2	891	5.3	959	6.4	1021	7.6	1080	8.8	1139	10.1	1196	11.4
15000	1611	694	2.4	734	3.0	807	4.1	875	5.2	941	6.4	1007	7.7	1069	9.0	1125	10.4	1179	11.7	1230	13.1
17000	1826	775	3.3	812	3.9	879	5.2	941	6.5	1000	7.8	1059	9.1	1117	10.6	1174	12.1	1226	13.6	1276	15.1
19000	2041	858	4.4	891	5.2	954	6.6	1011	8.0	1065	9.4	1118	10.9	1170	12.4	1223	14.0	1274	15.6	1324	17.3
21000	2256	942	5.8	972	6.6	1030	8.2	1083	9.7	1134	11.3	1183	12.9	1231	14.5	1278	16.2	1325	17.9	1373	19.7
23000	2470	1025	7.5	1054	8.3	1107	10.1	1158	11.8	1206	13.5	1251	15.2	1296	16.9	1339	18.7	1382	20.5	1426	22.4
25000	2685	1110	9.4	1136	10.4	1186	12.2	1233	14.1	1279	16.0	1322	17.8	1364	19.7	1405	21.6	1445	23.5	1485	25.4
27000	2900	1194	11.7	1219	12.7	1266	14.7	1311	16.8	1353	18.8	1395	20.8	1435	22.8	1473	24.8	1511	26.9	1548	28.9
30000	3222	1322	15.8	1344	16.9	1387	19.2	1428	21.4	1468	23.6	1506	25.9	1543	28.1	1579	30.4	1615	32.6	1649	34.9
33000	3545	1450	20.8	1470	22.0	1510	24.5	1548	26.9	1584	29.4	1620	31.9	1655	34.3	1689	36.8	1722	39.3	1755	41.7
36000	3867	1578	26.8	1597	28.1	1633	30.8	1669	33.5	1703	36.1	1736	38.8	1769	41.5	1801	44.2	1832	46.9	1863	49.6
40000	4296	1749	36.4	1766	37.9	1799	40.8	1832	43.8	1863	46.8	1894	49.8	1924	52.7	1954	55.7	1983	58.7	2011	61.7
44000	4726	1921	48.1	1936	49.7	1967	53.0	1997	56.2	2026	59.5	2054	62.8	2082	66.1	2110	69.3	2137	72.6	2163	75.9
48000	5156	2093	62.1	2107	63.9	2135	67.4	2163	71.0	2190	74.5	2216	78.1	2242	81.7	2268	85.3	2293	88.8	2318	92.4
52000	5585	2265	78.6	2278	80.5	2304	84.4	2330	88.2	2355	92.1	2380	96.0	2404	99.8	2428	103.7	2452	107.6	2475	115.5
56000	6015	2437	97.9	2449	99.9	2474	104.1	2498	108.2	2521	112.4	2544	116.5								
<b>CFM</b>	<b>OV FPM</b>	<b>5" SP</b>		<b>6" SP</b>		<b>7" SP</b>		<b>8" SP</b>		<b>10" SP</b>		<b>12" SP</b>		<b>14" SP</b>		<b>16" SP</b>		<b>18" SP</b>		<b>20" SP</b>	
		<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>
12000	1289	1243	12.1																		
15000	1611	1281	14.5	1381	17.6	1477	20.9	1571	24.4												
18000	1933	1347	17.8	1436	21.0	1520	24.4	1604	28.0	1767	35.7										
21000	2256	1419	21.5	1506	25.3	1587	29.0	1662	32.7	1808	40.6	1950	49.3	2087	58.6	2220	68.5				
24000	2578	1496	25.8	1579	29.9	1659	34.2	1733	38.4	1871	46.9	1999	55.7	2125	65.2	2248	75.3	2369	85.9	2485	97.1
27000	2900	1585	31.0	1659	35.3	1733	39.8	1805	44.5	1942	54.1	2066	63.6	2182	73.4	2295	83.6	2406	94.3	2516	105.7
30000	3222	1683	37.1	1750	41.7	1816	46.4	1882	51.3	2014	61.7	2138	72.3	2251	82.9	2358	93.6	2461	104.6		
33000	3545	1786	44.2	1848	49.2	1909	54.2	1969	59.3	2090	70.1	2210	81.6	2323	93.2	2429	104.9	2528	116.5		
36000	3867	1893	52.3	1952	57.7	2009	63.1	2064	68.5	2175	79.8	2285	91.7	2395	104.1	2501	116.8				
39000	4189	2002	61.4	2058	67.2	2112	73.1	2165	78.9	2268	90.8	2369	103.1	2472	116.0						
43000	4619	2152	75.4	2204	81.8	2254	88.2	2304	94.6	2400	107.5	2493	120.6								
47000	5048	2304	91.6	2353	98.6	2401	105.6	2447	112.6	2538	126.7										
51000	5478	2459	110.3	2505	117.9	2550	125.5														

**300 RA** 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.

<b>CFM</b>	<b>OV FPM</b>	<b>1/4" SP</b>		<b>1/2" SP</b>		<b>1" SP</b>		<b>1-1/2" SP</b>		<b>2" SP</b>		<b>2-1/2" SP</b>		<b>3" SP</b>		<b>3-1/2" SP</b>		<b>4" SP</b>		<b>4-1/2" SP</b>	
		<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>
5000	537	327	.28	429	.56																
6500	698	367	.39	450	.71	602	1.50														
8000	859	413	.54	486	.91	615	1.74	738	2.77												
9500	1020	462	.74	528	1.16	643	2.08	750	3.12	854	4.34										
11000	1182	515	1.00	574	1.45	680	2.49	774	3.58	866	4.81	958	6.21	1041	7.68						
12500	1343	569	1.32	622	1.82	721	2.97	808	4.16	890	5.42	971	6.81	1052	8.36	1130	10.02	1201	11.68		
14000	1504	624	1.70	673	2.26	764	3.49	846	4.82	922	6.17	995	7.59	1068	9.12	1140	10.81	1212	12.62	1280	14.49
16000	1719	699	2.34	744	2.99	826	4.31	902	5.80	973	7.32	1039	8.85	1104	10.44	1167	12.12	1231	13.92	1294	15.85
18000	1933	775	3.12	816	3.87	891	5.32	961	6.90	1028	8.60	1091	10.31	1150	12.03	1208	13.79	1265	15.62	1321	17.54
20000	2148	852	4.08	890	4.93	959	6.54	1024	8.20	1086	10.02	1146	11.92	1202	13.82	1256	15.72	1309	17.66	1360	19.64
22000	2363	930	5.23	965	6.17	1029	7.97	1090	9.74	1148	11.63	1204	13.67	1258	15.76	1309	17.85	1359	19.94	1407	22.05
24000	2578	1008	6.60	1040	7.63	1101	9.61	1158	11.53	1212	13.51	1265	15.63	1316	17.86	1365	20.14	1413	22.42	1459	24.70
26000	2793	1087	8.19	1117	9.32	1174	11.49	1227	13.58	1278	15.67	1328	17.85	1376	20.18	1424	22.60	1470	25.07	1514	27.55
28000	3008	1165	10.04	1194	11.25	1248	13.62	1298	15.89	1347	18.12	1393	20.40	1439	22.79	1484	25.31	1528	27.91	1571	30.57
31000	3330	1284	13.32	1310	14.67	1360	17.31	1407	19.88	1452	22.36	1495	24.83	1537	27.35	1579	29.97	1620	32.71	1660	35.55
34000	3652	1404	17.27	1428	18.75	1474	21.67	1517	24.53	1559	27.29	1600	30.01	1639	32.72	1678	35.48	1716	38.32	1753	41.26
37000	3974	1524	21.96	1546	23.57	1588	26.77	1629	29.91	1669	32.97	1707	35.95	1744	38.90	1780	41.85	1816	44.85	1851	47.90
40000	4296	1644	27.45	1664	29.20	1704	32.66	1742	36.08	1780	39.44	1816	42.71	1850	45.93	1885	49.11	1918	52.30	1951	55.52
43000	4619	1764	33.81	1783	35.69	1820	39.42	1857	43.12	1892	46.76	1926	50.33	1959	53.84						
46000	4941	1884	41.10	1902	43.11	1937	47.11														
<b>CFM</b>	<b>OV FPM</b>	<b>5" SP</b>		<b>5-1/2" SP</b>		<b>6" SP</b>		<b>6-1/2" SP</b>		<b>7" SP</b>		<b>7-1/2" SP</b>		<b>8" SP</b>		<b>8-1/2" SP</b>		<b>9" SP</b>		<b>10" SP</b>	
		<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>
16000	1719	1357	17.90	1418	20.01	1476	22.15	1531	24.27												
17500	1880	1371	19.09	1429	21.25	1487	23.50	1542	25.82	1596	28.15	1647	30.48								
19000	2041	1393	20.57	1447	22.69	1500	24.92	1553	27.27	1606	29.72	1658	32.22	1708	34.75	1757	37.29	1803	39.81		
20500	2202																				

<b>330</b>		<b>DOUBLE WIDTH</b>																<b>RPM 2089</b>			
		Wheel Diameter: 32-3/8 Outlet Area: 11.27 sq. ft.																			
CFM	OV FPM	1/4" SP		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	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
6000	532	295	0.3	377	0.6	512	1.3														
8000	710	341	0.5	409	0.8	528	1.6	632	2.5												
10000	887	393	0.7	451	1.1	555	1.9	649	2.9	736	4.0	814	5.2								
12000	1065	449	1.1	500	1.5	591	2.5	676	3.5	755	4.7	829	5.9	899	7.3	964	8.6	1024	10.0		
14000	1242	506	1.5	553	2.0	634	3.1	710	4.2	783	5.4	851	6.8	917	8.2	980	9.7	1040	11.3	1096	12.9
16000	1420	566	2.0	607	2.6	683	3.9	751	5.1	817	6.4	881	7.8	941	9.3	1000	10.9	1057	12.5	1112	14.3
18000	1597	626	2.7	664	3.4	734	4.8	797	6.2	857	7.6	916	9.0	972	10.6	1027	12.2	1081	13.9	1132	15.7
22000	1952	749	4.6	781	5.4	842	7.0	898	8.7	950	10.4	1000	12.2	1049	13.9	1097	15.7	1144	17.5	1190	19.3
26000	2307	875	7.2	902	8.1	955	10.0	1005	12.0	1052	14.0	1097	16.0	1140	18.1	1182	20.1	1224	22.2	1265	24.2
30000	2662	1001	10.7	1025	11.8	1072	14.0	1116	16.2	1160	18.5	1201	20.8	1241	23.1	1279	25.5	1316	27.8	1353	30.2
34000	3017	1129	15.3	1150	16.5	1192	18.9	1232	21.4	1271	23.9	1309	26.5	1346	29.1	1382	31.8	1416	34.4	1450	37.1
38000	3372	1257	21.0	1276	22.3	1313	25.0	1350	27.8	1386	30.6	1421	33.4	1455	36.3	1488	39.2	1521	42.2	1552	45.1
42000	3727	1385	28.0	1403	29.5	1437	32.4	1470	35.5	1503	38.5	1535	41.6	1567	44.8	1598	48.0	1628	51.2	1658	54.4
46000	4082	1514	36.4	1530	38.0	1561	41.3	1592	44.6	1622	47.9	1652	51.3	1681	54.7	1710	58.2	1739	61.6	1767	65.1
50000	4437	1643	46.5	1657	48.2	1687	51.8	1715	55.3	1743	58.9	1771	62.6	1798	66.2	1825	69.9	1852	73.7	1878	77.5
54000	4791	1772	58.2	1786	60.1	1813	63.9	1839	67.8	1865	71.6	1891	75.5	1917	79.5	1942	83.4	1967	87.4	1992	91.5
58000	5146	1901	71.9	1914	73.9	1939	77.9	1964	82.1	1989	86.2	2013	90.4	2037	94.6	2061	98.8	2084	103.1	2107	107.4
62000	5501	2031	87.5	2043	89.6	2066	94.0	2090	98.3	2113	102.7	2136	107.2	2158	111.7	2181	116.2	2203	120.7	2225	125.2
66000	5856	2160	105.2	2171	107.5	2194	112.1	2216	116.8	2238	121.4	2259	126.1	2281	130.9	2302	135.6	2323	140.4		
70000	6211	2290	125.2	2300	127.6	2321	132.5														
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
14000	1242	1149	14.5																		
18000	1597	1183	17.6	1280	21.5	1371	25.5	1456	29.7												
22000	1952	1235	21.3	1323	25.5	1407	30.0	1489	34.7	1643	44.3	1783	54.4	1911	64.8						
26000	2307	1305	26.3	1384	30.6	1461	35.3	1536	40.2	1678	50.8	1815	61.9	1943	73.4	2064	85.2	2176	97.4		
30000	2662	1389	32.6	1460	37.3	1530	42.1	1598	47.1	1730	58.0	1856	69.8	1978	82.3	2095	95.2	2208	108.4	2314	122.0
34000	3017	1483	39.8	1547	45.1	1610	50.5	1673	55.9	1795	67.0	1913	79.1	2026	92.1	2136	105.8	2243	120.0		
38000	3372	1583	48.1	1643	54.0	1701	60.0	1758	66.0	1870	78.0	1980	90.4	2086	103.5	2189	117.6	2290	132.4		
42000	3727	1687	57.7	1744	64.2	1798	70.8	1851	77.4	1954	90.7	2056	103.9	2156	117.5	2253	131.6				
46000	4082	1794	68.7	1848	75.8	1900	82.9	1950	90.1	2047	104.6	2141	119.1	2234	133.7	2325	148.4				
50000	4437	1904	81.2	1955	88.9	2004	96.6	2052	104.4	2144	120.0	2233	135.8	2319	151.6						
54000	4791	2016	95.5	2064	103.7	2111	112.0	2157	120.3	2245	137.1										
58000	5146	2131	111.7	2176	120.4	2221	129.2	2265	138.1												
62000	5501	2247	129.8	2290	139.1																

**330 RA** 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.

CFM	OV FPM	1/4" SP		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	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
6000	532	294	.32	388	.65																
8000	710	332	.46	409	.85	545	1.77														
10000	887	378	.65	443	1.10	562	2.12	669	3.29	765	4.62										
12000	1065	428	.92	485	1.42	589	2.56	685	3.83	775	5.22	859	6.74								
14000	1242	480	1.25	531	1.82	624	3.07	710	4.47	793	5.95	871	7.54	945	9.25	1015	11.07				
16000	1420	534	1.68	580	2.31	665	3.67	743	5.19	818	6.81	890	8.49	960	10.27	1027	12.16	1091	14.14	1152	16.22
18000	1597	588	2.20	632	2.91	709	4.39	781	6.00	850	7.75	916	9.57	981	11.46	1043	13.42	1104	15.47	1163	17.61
20000	1775	643	2.83	684	3.62	756	5.23	823	6.95	887	8.80	948	10.75	1008	12.78	1066	14.85	1123	16.99	1179	19.21
22000	1952	699	3.57	738	4.45	805	6.21	867	8.04	927	9.98	984	12.05	1040	14.20	1094	16.42	1148	18.69	1200	21.00
24000	2130	755	4.46	792	5.42	856	7.32	914	9.29	970	11.33	1024	13.49	1076	15.75	1128	18.11	1178	20.52	1227	22.97
26000	2307	811	5.48	847	6.53	908	8.59	963	10.69	1015	12.85	1066	15.11	1116	17.47	1164	19.92	1211	22.46	1258	25.06
28000	2484	868	6.67	902	7.80	960	10.02	1013	12.26	1062	14.55	1111	16.92	1158	19.37	1204	21.92	1249	24.57	1293	27.29
30000	2662	925	8.02	957	9.23	1014	11.62	1064	14.01	1111	16.43	1157	18.92	1202	21.48	1245	24.13	1288	26.86	1330	29.69
32000	2839	982	9.56	1013	10.85	1067	13.41	1116	15.94	1161	18.51	1205	21.12	1247	23.80	1289	26.56	1330	29.39	1370	32.30
36000	3194	1097	13.21	1125	14.68	1176	17.57	1222	20.42	1264	23.28	1304	26.17	1342	29.10	1381	32.09	1418	35.14	1455	38.25
40000	3549	1213	17.74	1239	19.37	1286	22.60	1329	25.79	1369	28.95	1406	32.13	1442	35.34	1478	38.58	1512	41.88	1546	45.22
44000	3904	1329	23.24	1353	25.04	1397	28.60	1438	32.12	1476	35.61	1511	39.10	1545	42.59	1578	46.12	1610	49.67	1642	53.26
48000	4259	1445	29.79	1468	31.76	1509	35.66	1548	39.52	1584	43.34	1618	47.15	1650	50.95	1681	54.76	1712	58.60	1741	62.46
53000	4703	1591	39.63	1612	41.80	1651	46.12	1687	50.40	1721	54.65	1753	58.87								
58000	5146	1738	51.47	1756	53.84																
CFM	OV FPM	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		10" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
18000	1597	1220	19.85	1275	22.16	1328	24.56	1379	27.03												
20000	1775	1234	21.51	1287	23.89	1338	26.35	1388	28.89	1437	31.51	1484	34.19	1530	36.94						
22000	1952	1252	23.38	1302	25.84	1352	28.37	1400	30.98	1448	33.66	1494	36.41	1539	39.23	1583	42.11	1626	45.06		
24000	2130	1275	25.46	1323	28.01	1370	30.62	1417	33.30	1462	36.04	1507	38.86	1551	41.75	1594	44.70	1636	47.72	1718	53.93
26000	2307	1304	27.70	1349	30.38	1394	33.10	1438	35.87	1481	38.69	1524	41.58	1566	44.53	1608	47.55	1649	50.64	1729	56.99
28000	2484	1336	30.07	1379	32.89	1421	35.75	1463	38.65	1504	41.58										



<b>365</b>		<b>DOUBLE WIDTH</b> Wheel Diameter: 35-9/16 Outlet Area: 13.79sq. ft.																<b>RPM 1885</b>			
CFM	OV FPM	1/4" SP		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	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
7000	508	265	0.4	341	0.7																
10000	725	317	0.6	377	1.0	484	1.9	577	3.0	657	4.2										
13000	943	377	1.0	427	1.5	517	2.6	599	3.8	675	5.1	746	6.6	810	8.1						
16000	1160	441	1.6	485	2.2	562	3.4	634	4.7	702	6.2	766	7.8	828	9.5	886	11.2				
19000	1378	508	2.4	546	3.1	615	4.5	678	6.0	739	7.6	798	9.2	853	11.0	907	12.9	941	13.0	922	14.9
22000	1595	576	3.4	610	4.2	673	5.9	730	7.6	784	9.3	837	11.1	888	12.9	938	14.9	986	17.0	1033	19.2
25000	1813	645	4.7	676	5.6	733	7.5	787	9.4	836	11.4	883	13.4	930	15.3	976	17.4	1021	19.5	1064	21.8
28000	2030	716	6.4	743	7.4	796	9.4	845	11.6	892	13.8	935	16.0	978	18.2	1020	20.4	1061	22.6	1102	24.9
31000	2248	787	8.4	812	9.5	860	11.8	906	14.1	950	16.5	991	18.9	1031	21.4	1069	23.8	1107	26.3	1145	28.7
36000	2611	906	12.7	928	13.9	970	16.6	1011	19.2	1051	22.0	1088	24.7	1125	27.5	1160	30.4	1194	33.2	1227	36.0
41000	2973	1026	18.3	1045	19.7	1083	22.7	1120	25.7	1155	28.7	1190	31.9	1224	35.0	1256	38.2	1288	41.4	1318	44.6
46000	3336	1146	25.4	1164	27.0	1198	30.3	1231	33.6	1263	37.0	1295	40.5	1326	44.0	1356	47.5	1386	51.0	1415	54.6
51000	3698	1267	34.2	1283	36.0	1314	39.6	1344	43.3	1374	47.0	1403	50.8	1432	54.6	1460	58.5	1487	62.4	1515	66.3
56000	4061	1388	44.9	1403	46.8	1431	50.8	1459	54.8	1487	58.9	1513	63.0	1540	67.1	1566	71.3	1592	75.5	1617	79.8
61000	4423	1510	57.6	1523	59.8	1549	64.0	1575	68.4	1601	72.8	1626	77.2	1650	81.7	1675	86.2	1699	90.8	1722	95.4
66000	4786	1632	72.6	1644	74.9	1668	79.5	1692	84.2	1716	88.9	1739	93.7	1762	98.5	1785	103.3	1807	108.2	1830	113.1
71000	5149	1753	90.0	1765	92.5	1788	97.4	1810	102.5	1832	107.5	1854	112.6	1875	117.7	1897	122.9	1918	128.1	1939	133.4
76000	5511	1875	110.0	1886	112.6	1907	117.9	1928	123.3	1949	128.7	1970	134.1	1990	139.6	2010	145.1	2030	150.7	2050	156.2
81000	5874	1997	132.8	2007	135.6	2027	141.2	2047	146.9	2067	152.7	2086	158.5	2105	164.2	2124	170.1				
86000	6236	2119	158.5	2129	161.5																
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
16000	1160	1041	16.8																		
20000	1450	1064	19.9	1155	24.3	1238	28.9	1315	33.7												
25000	1813	1107	24.1	1189	29.1	1268	34.4	1345	39.8	1486	51.1	1613	62.8								
30000	2175	1168	29.8	1242	35.0	1314	40.5	1383	46.5	1517	58.9	1643	72.0	1761	85.5	1870	99.4	1972	113.7		
35000	2538	1243	37.2	1310	42.8	1375	48.5	1439	54.5	1561	67.6	1679	81.7	1791	96.5	1899	111.8	2002	127.4	2099	143.4
40000	2901	1330	45.9	1390	52.2	1449	58.6	1507	64.9	1620	78.2	1728	92.7	1833	108.3	1935	124.7	2033	141.6	2129	158.9
45000	3263	1424	56.0	1479	63.1	1532	70.2	1585	77.3	1689	91.5	1790	106.3	1888	122.1	1983	139.0	2075	156.8		
50000	3626	1521	67.7	1573	75.5	1623	83.3	1672	91.2	1767	107.0	1860	122.8	1952	139.0	2041	156.0	2128	174.1		
55000	3988	1622	81.1	1671	89.6	1718	98.2	1764	106.8	1853	124.1	1939	141.5	2024	158.9	2108	176.5				
60000	4351	1725	96.6	1771	105.8	1817	115.1	1860	124.4	1944	143.2	2025	162.1	2104	181.1						
65000	4714	1830	114.3	1874	124.1	1917	134.1	1959	144.1	2039	164.4	2116	184.7								
70000	5076	1938	134.3	1980	144.9	2020	155.5	2060	166.2	2137	187.9										
75000	5439	2047	157.0	2087	168.1	2125	179.5														

**365 RA** 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.

CFM	OV FPM	1/4" SP		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	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
7000	508	265	0.37	352	0.77																
10000	725	308	0.58	376	1.06	498	2.19														
13000	943	361	0.90	417	1.46	519	2.75	614	4.20	699	5.83										
16000	1160	419	1.34	467	2.00	555	3.46	637	5.09	715	6.82	788	8.71	857	10.74	921	12.90				
19000	1378	479	1.94	522	2.70	600	4.32	672	6.13	741	8.06	807	10.08	871	12.21	933	14.47	991	16.86	1047	19.35
22000	1595	540	2.72	580	3.59	650	5.39	715	7.35	777	9.47	837	11.69	895	13.98	951	16.36	1006	18.84	1060	21.44
25000	1813	603	3.60	640	4.69	703	6.70	763	8.82	819	11.08	874	13.41	927	15.99	979	18.56	1030	21.19	1079	23.90
28000	2030	666	4.90	700	6.02	760	8.25	814	10.55	867	12.97	917	15.52	966	18.20	1013	20.98	1060	23.82	1106	26.71
31000	2248	729	6.37	762	7.62	818	10.07	869	12.57	917	15.17	964	17.87	1009	20.69	1054	23.64	1097	26.68	1140	29.79
34000	2466	793	8.12	824	9.50	877	12.20	925	14.91	970	17.69	1014	20.56	1057	23.53	1098	26.61	1139	29.81	1179	33.10
37000	2683	858	10.19	887	11.69	938	14.64	983	17.57	1025	20.55	1066	23.61	1106	26.74	1146	29.98	1184	33.31	1222	36.75
40000	2901	922	12.60	950	14.23	999	17.43	1042	20.59	1082	23.79	1121	27.03	1159	30.35	1196	33.75	1232	37.24	1268	40.81
43000	3118	987	15.38	1013	17.13	1060	20.58	1102	23.99	1140	27.41	1177	30.86	1213	34.36	1248	37.94	1282	41.60	1316	45.33
46000	3336	1052	18.56	1077	20.43	1122	24.14	1162	27.80	1199	31.44	1235	35.11	1269	38.81	1302	42.57	1335	46.41	1367	50.31
49000	3553	1118	22.16	1141	24.16	1185	28.12	1223	32.03	1259	35.91	1293	39.80	1326	43.72	1357	47.68	1388	51.69	1419	55.78
52000	3771	1183	26.22	1206	28.34	1247	32.55	1285	36.71	1320	40.84	1352	44.96	1384	49.09	1414	53.26	1444	57.48	1473	61.73
55000	3988	1249	30.75	1270	33.00	1310	34.47	1347	41.88	1380	46.25	1412	50.61	1443	54.97	1472	59.35	1501	63.77	1529	68.24
60000	4351	1359	39.46	1379	41.91	1416	46.80	1450	51.64	1483	56.43	1513	61.19	1542	65.94	1570	70.70	1597	75.47		
65000	4714	1469	49.71	1487	52.36	1522	57.67	1555	62.93	1586	68.15	1615	73.32								
70000	5076	1579	61.62	1596	64.49																
CFM	OV FPM	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		10" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
20000	1450	1104	22.64	1154	25.38																
23000	1668	1116	24.95	1165	27.79	1213	30.72	1259	33.75	1304	36.86										
26000	1885	1135	27.64	1181	30.58	1227	33.61	1272	36.74	1315	39.96	1357	43.26	1399	46.64	1439	50.10	1478	53.63		
29000	2103	1161	30.72	1204	33.80	1247	36.95	1289	40.17	1331	43.49	1371	46.89	1411	50.38	1451	53.94	1489	57.58	1563	65.08
32000	2321	1193	34.09	1234	37.37	1274	40.69	1314	44.07	1353	47.50	1391	51.01	1429	54.59	1467	58.26	1504	62.00	1576	69.71
35000	2538	1231	37.71	1269	41.20	1307	44.74	1344	48.32	1380	51.94	1417	55.61	1453	59.33	1488	63.12	1524	66.96	1593	74.86
38000	2756	1273	41.64	1309	45.31	1344	49.06	1379	52.85	1414	56.70	144									

## 402

### DOUBLE WIDTH

Wheel Diameter: 39-3/8 Outlet Area: 16.77 sq. ft.

**RPM****1703**

CFM	OV FPM	1/4" SP		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	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
9000	537	240	0.5	304	0.9																
14000	835	306	0.9	355	1.5	440	2.7	519	4.1	594	5.7										
19000	1133	380	1.7	421	2.5	492	4.0	556	5.5	616	7.2	674	9.1	732	11.1	787	13.4	838	15.7		
24000	1431	459	3.0	494	3.9	556	5.8	612	7.7	663	9.6	712	11.6	760	13.7	806	15.9	853	18.3	899	20.9
29000	1729	541	4.8	570	5.8	626	8.1	676	10.4	723	12.7	766	15.0	808	17.3	849	19.7	888	22.2	927	24.8
34000	2027	624	7.2	650	8.5	699	11.0	745	13.7	788	16.4	828	19.1	866	21.8	903	24.5	939	27.3	974	30.0
39000	2326	709	10.5	731	11.9	775	14.8	817	17.8	856	20.9	894	24.0	930	27.1	964	30.2	997	33.3	1029	36.4
44000	2624	794	14.7	814	16.2	853	19.4	891	22.7	928	26.1	963	29.6	997	33.1	1029	36.7	1060	40.2	1090	43.7
49000	2922	880	19.9	898	21.6	934	25.0	968	28.7	1002	32.4	1035	36.3	1066	40.1	1097	44.1	1126	48.0	1155	51.9
54000	3220	967	26.2	983	28.0	1015	31.8	1047	35.8	1078	39.8	1109	44.0	1138	48.2	1167	52.5	1195	56.8	1222	61.1
59000	3518	1053	33.8	1068	35.8	1098	39.9	1127	44.1	1156	48.5	1184	53.0	1212	57.5	1239	62.2	1266	66.8	1292	71.5
64000	3816	1140	42.7	1154	44.9	1181	49.4	1208	53.9	1235	58.6	1262	63.3	1288	68.2	1313	73.1	1339	78.1	1363	83.2
69000	4114	1227	53.2	1240	55.5	1266	60.3	1291	65.1	1316	70.1	1340	75.2	1365	80.3	1389	85.6	1413	90.9	1436	96.3
74000	4413	1314	65.2	1326	67.7	1350	72.8	1374	78.0	1397	83.3	1420	88.6	1443	94.1	1466	99.6	1488	105.3	1511	111.0
79000	4711	1401	79.0	1412	81.6	1435	87.1	1457	92.6	1479	98.1	1501	103.8	1523	109.6	1544	115.4	1565	121.4	1587	127.4
84000	5009	1488	94.6	1499	97.4	1520	103.1	1541	109.0	1562	114.9	1583	120.8	1603	126.9	1623	133.1	1644	139.3	1664	145.6
89000	5307	1576	112.1	1586	115.1	1606	121.2	1626	127.3	1646	133.5	1665	139.8	1684	146.2	1704	152.7	1723	159.2	1742	165.8
94000	5605	1663	131.7	1673	134.9	1692	141.3	1711	147.8	1729	154.3	1748	160.9	1766	167.6	1785	174.3	1803	181.2	1821	188.1
99000	5903	1751	153.5	1760	156.8	1778	163.6	1796	170.4	1814	177.2	1831	184.2	1849	191.1	1866	198.2				
104000	6202	1838	177.6	1847	181.1	1864	188.1														

**402 RA** 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.

CFM	OV FPM	1/4" SP		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	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
9000	537	243	0.5	319	1.0																
13000	775	287	0.8	346	1.4	453	2.8	545	4.5	635	7.5	704	9.7								
17000	1014	341	1.2	390	2.0	478	3.6	559	5.4	653	8.9	717	11.3	778	13.8	836	16.5	890	19.4		
21000	1252	399	1.9	440	2.8	516	4.6	586	6.7	653	8.9	717	11.3	778	13.8	836	16.5	890	19.4		
25000	1491	459	2.8	496	3.8	563	5.9	625	8.2	684	10.7	741	13.3	796	15.9	850	18.8	901	21.8	951	24.9
29000	1729	520	4.0	554	5.1	614	7.5	669	10.0	726	12.7	774	15.5	824	18.5	872	21.5	920	24.7	966	27.9
33000	1968	581	5.5	613	6.8	668	9.4	719	12.2	767	15.0	814	18.1	859	21.3	904	24.6	947	28.0	990	31.5
37000	2206	644	7.3	674	8.8	725	11.7	771	14.7	816	17.9	859	21.1	901	24.5	942	28.1	982	31.8	1021	35.5
41000	2445	706	9.6	735	11.2	783	14.5	826	17.8	868	21.1	908	24.6	947	28.2	985	32.0	1022	35.8	1058	39.8
45000	2683	770	12.3	796	14.1	842	17.7	883	21.3	922	24.9	959	28.6	995	32.4	1031	36.4	1066	40.5	1100	44.7
49000	2922	833	15.5	858	17.5	902	21.4	941	25.3	978	29.2	1012	33.2	1047	37.2	1080	41.4	1113	45.7	1145	50.1
53000	3160	897	19.2	921	21.4	963	25.6	1000	29.8	1035	34.0	1068	38.3	1100	42.6	1131	47.0	1162	51.5	1193	56.1
57000	3399	961	23.6	984	25.9	1024	30.5	1060	35.0	1093	39.5	1125	44.1	1155	48.6	1185	53.3	1214	58.0	1243	62.9
61000	3637	1026	28.5	1047	31.0	1085	35.9	1120	40.8	1152	45.6	1182	50.5	1211	55.3	1240	60.3	1267	65.2	1295	70.3
65000	3876	1090	34.1	1110	36.8	1147	42.1	1180	47.3	1211	52.4	1241	57.6	1269	62.7	1296	67.9	1322	73.2	1348	78.5
69000	4114	1155	40.5	1174	43.3	1209	48.9	1241	54.4	1271	59.9	1300	65.4	1327	70.9	1353	76.3	1378	81.9	1403	87.5
73000	4353	1220	47.6	1238	50.6	1271	56.5	1303	62.4	1332	68.2	1359	74.0	1386	79.8	1411	85.6	1435	91.4		
77000	4592	1285	55.5	1302	58.6	1334	64.9	1364	71.1	1393	77.3	1419	83.4	1445	89.5						
81000	4830	1350	64.2	1366	67.5	1397	74.1	1426	80.7	1454	87.2										
85000	5069	1415	73.8	1430	77.3																

CFM	OV FPM	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		10" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
25000	1491	998	28.1	1044	31.5																
28750	1714	1011	31.1	1055	34.6	1097	38.2	1139	41.9	1179	45.7	1218	49.7								
32500	1938	1029	34.5	1070	38.2	1111	41.9	1151	45.8	1190	49.7	1228	53.8	1265	57.9	1301	62.2	1337	66.6		
36250	2162	1054	38.5	1093	42.3	1131	46.2	1169	50.2	1206	54.2	1242	58.4	1278	62.7	1313	67.1	1347	71.6	1414	80.9
40000	2385	1085	42.7	1121	46.8	1157	50.9	1192	55.1	1227	59.4	1261	63.7	1295	68.1	1329	72.7	1362	77.3	1427	86.8
43750	2609	1121	47.3	1155	51.7	1188	56.1	1221	60.5	1254	65.0	1286	69.6	1318	74.2	1350	78.9	1381	83.6	1443	93.4
47500	2832	1160	52.4	1192	56.9	1224	61.6	1255	66.3	1285	71.1	1316	75.9	1346	80.8	1376	85.7	1406	90.6		
51250	3056	1202	58.0	1233	62.7	1262	67.6	1292	72.5	1321	77.5	1350	82.6	1378	87.7	1407	92.9	1435	98.2		
55000	3280	1247	64.2	1276	69.1	1304	74.1	1332	79.2	1360	84.4	1387	89.8	1414	95.1	1441	100.6				
58750	3503	1293	71.0	1321	76.1	1348	81.3	1375	86.6	1401	92.0	1427	97.5	1453	103.1						
62500	3727	1341	78.5	1368	83.8	1393	89.2	1419	94.7	1445	100.3										
66250	3951	1391	86.7	1416	92.2	1441	97.8														
70000	4174	1442	95.5																		

<b>445</b>		<b>DOUBLE WIDTH</b>																<b>RPM 1493</b>			
		<b>Wheel Diameter: 43-7/16 Outlet Area: 20.49 sq. ft.</b>																			
<b>CFM</b>	<b>OV FPM</b>	<b>1/4" SP</b>		<b>1/2" SP</b>		<b>1" SP</b>		<b>1-1/2" SP</b>		<b>2" SP</b>		<b>2-1/2" SP</b>		<b>3" SP</b>		<b>3-1/2" SP</b>		<b>4" SP</b>		<b>4-1/2" SP</b>	
		<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>
10000	488	210	0.5	272	1.0																
15000	732	256	0.9	304	1.5	388	2.9	466	4.5												
20000	976	309	1.6	350	2.4	420	4.0	483	5.7	544	7.7	603	10.0	658	12.4						
25000	1220	366	2.5	401	3.5	463	5.5	518	7.5	570	9.6	619	11.8	668	14.4	716	17.1	763	20.0	806	23.0
30000	1464	425	3.9	456	5.0	512	7.4	562	9.8	608	12.1	651	14.6	694	17.2	735	19.9	776	22.8	817	26.0
35000	1708	486	5.7	513	7.0	564	9.7	610	12.5	652	15.3	692	18.0	730	20.8	767	23.7	803	26.7	839	29.9
40000	1952	548	8.0	572	9.5	618	12.5	661	15.7	700	18.9	737	22.1	773	25.3	807	28.4	840	31.6	872	34.9
45000	2196	611	11.0	633	12.6	674	16.0	714	19.5	751	23.1	785	26.7	819	30.3	851	33.8	882	37.4	912	41.0
50000	2440	675	14.7	694	16.5	732	20.1	768	24.0	803	27.9	836	31.9	867	35.9	898	39.9	927	43.9	955	47.8
55000	2684	738	19.2	756	21.1	791	25.1	824	29.2	857	33.5	888	37.8	918	42.2	947	46.6	975	51.0	1002	55.4
60000	2928	802	24.6	819	26.6	851	30.9	882	35.3	912	39.9	942	44.6	970	49.4	998	54.2	1024	59.0	1050	63.8
65000	3172	867	30.8	822	33.1	911	37.7	940	42.4	969	47.3	997	52.3	1024	57.4	1050	62.6	1075	67.7	1100	72.9
70000	3416	931	38.1	945	40.5	973	45.4	1000	50.5	1026	55.7	1053	61.0	1078	66.4	1104	71.9	1128	77.5	1152	83.0
75000	3660	996	46.5	1009	49.1	1035	54.3	1060	59.7	1085	65.2	1110	70.8	1134	76.5	1158	82.4	1182	88.3	1204	94.2
80000	3904	1060	56.1	1073	58.8	1097	64.4	1121	70.0	1145	75.8	1168	81.8	1191	87.8	1214	94.0	1236	100.2	1258	106.5
85000	4148	1125	66.9	1137	69.8	1160	75.7	1182	81.7	1205	87.8	1227	94.0	1249	100.3	1270	106.8	1292	113.3	1313	120.0
95000	4636	1255	92.7	1265	95.9	1286	102.4	1306	109.0	1326	115.7	1346	122.6	1366	129.5	1386	136.5	1405	143.7	1425	151.0
105000	5124	1385	124.3	1394	127.9	1413	135.0	1432	142.3	1450	149.6	1468	157.1	1486	164.6	1504	172.3	1522	180.1	1540	187.9
115000	5612	1515	162.6	1523	166.4	1541	174.2	1558	182.2	1575	190.2	1591	198.2	1608	206.4	1624	214.7	1641	223.0	1657	231.5
125000	6101	1645	208.0	1653	212.2	1669	220.7	1685	229.3	1700	237.9										
<b>CFM</b>	<b>OV FPM</b>	<b>5" SP</b>		<b>6" SP</b>		<b>7" SP</b>		<b>8" SP</b>		<b>10" SP</b>		<b>12" SP</b>		<b>14" SP</b>		<b>16" SP</b>		<b>18" SP</b>		<b>20" SP</b>	
		<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>
29000	1415	855	28.6	931	35.5																
34000	1659	869	32.3	941	39.4	1011	47.1	1076	55.2												
39000	1903	897	37.2	961	44.3	1024	52.1	1086	60.4	1205	78.4										
44000	2147	933	43.3	991	50.6	1048	58.4	1104	66.7	1215	85.0	1322	105.0	1422	126.1						
49000	2391	974	50.3	1029	58.2	1081	66.3	1133	74.7	1233	92.9	1333	113.1	1431	135.0	1524	158.0	1611	181.8		
54000	2635	1019	58.1	1070	66.7	1120	75.3	1168	84.2	1261	102.7	1353	122.8	1444	144.8	1533	168.4	1620	193.2	1702	218.9
59000	2879	1066	66.7	1115	76.1	1162	85.4	1207	94.9	1295	114.2	1381	134.7	1464	165.5	1548	180.0	1630	205.2		
64000	3123	1114	76.2	1161	86.4	1206	96.5	1250	106.7	1334	127.1	1414	148.3	1493	170.5	1570	194.0	1647	219.0		
69000	3367	1165	86.5	1210	97.5	1253	108.5	1295	119.5	1375	141.3	1452	163.5	1527	186.4	1600	210.3	1672	235.4		
79000	3856	1269	110.2	1311	122.8	1351	135.4	1390	148.0	1465	173.2	1536	198.2	1605	223.4	1672	248.9				
89000	4344	1377	138.6	1416	152.7	1454	166.8	1491	181.0	1561	209.5	1628	237.9	1692	266.1						
99000	4832	1489	172.6	1525	187.9	1561	203.5	1595	219.2	1662	250.7										
109000	5320	1603	212.7	1637	229.3	1670	246.2	1703	263.2												

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.

<b>445 RA</b>		<b>DOUBLE WIDTH</b>																			
		<b>Wheel Diameter: 43-7/16 Outlet Area: 20.49 sq. ft.</b>																			
<b>CFM</b>	<b>OV FPM</b>	<b>1/4" SP</b>		<b>1/2" SP</b>		<b>1" SP</b>		<b>1-1/2" SP</b>		<b>2" SP</b>		<b>2-1/2" SP</b>		<b>3" SP</b>		<b>3-1/2" SP</b>		<b>4" SP</b>		<b>4-1/2" SP</b>	
		<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>
10000	488	214	0.5	287	1.1																
15000	732	253	0.9	308	1.6	408	3.3														
20000	976	302	1.4	347	2.3	429	4.2	504	6.4	574	8.9	637	11.6								
25000	1220	355	2.2	394	3.2	463	5.5	528	8.0	590	10.6	648	13.5	704	16.5	756	19.8				
30000	1464	411	3.3	445	4.5	506	7.0	563	9.8	617	12.8	669	15.9	720	19.1	769	22.6	816	26.2	861	30.0
35000	1708	467	4.7	499	6.1	553	9.0	604	12.0	653	15.3	699	18.7	745	22.3	789	26.0	832	29.8	875	33.7
40000	1952	525	6.6	554	8.2	604	11.4	650	14.7	694	18.2	736	21.7	778	25.8	818	29.8	858	34.0	896	38.1
45000	2196	583	8.9	610	10.7	657	14.2	699	17.9	739	21.7	778	25.6	816	29.8	853	34.1	890	38.6	925	43.1
50000	2440	641	11.7	667	13.7	711	17.7	750	21.7	787	25.8	824	30.0	859	34.4	893	39.0	927	43.7	960	48.6
55000	2684	700	15.1	724	17.3	766	21.7	803	26.1	838	30.5	871	35.0	904	39.7	936	44.5	968	48.9	999	54.6
60000	2928	759	19.1	782	21.6	822	26.4	857	31.1	890	35.9	921	40.8	952	45.7	982	50.8	1012	56.0	1041	61.4
65000	3172	819	23.8	840	26.5	878	31.7	912	36.9	943	42.0	973	47.2	1002	52.5	1030	57.9	1058	63.4	1086	69.0
70000	3416	879	29.3	898	32.2	935	37.8	967	43.4	997	48.9	1026	54.5	1053	60.1	1080	65.8	1106	71.7	1132	77.6
75000	3660	938	35.6	957	38.7	992	44.8	1023	50.7	1052	56.7	1080	62.6	1106	68.6	1131	74.7	1156	80.8	1181	87.0
80000	3904	999	42.8	1016	46.1	1049	52.5	1080	59.0	1108	65.3	1134	71.6	1159	78.0	1184	84.4	1207	90.8	1231	97.3
85000	4148	1059	50.9	1076	54.3	1107	61.3	1137	68.1	1164	74.9	1189	81.6	1213	88.3	1237	95.1	1260	101.9	1282	108.7
90000	4392	1119	59.9	1135	63.6	1165	70.9	1194	78.2	1220	85.4	1245	92.5	1268	99.7	1291	106.8	1313	114.0		
95000	4636	1179	70.0	1195	73.9	1224	81.7	1251	89.4	1277	97.0	1301	104.5								
100000	4880	1240	81.3	1255	85.3	1282	93.5	1309	101.6												
105000	5124	1300	93.6	1314	97.9																
<b>CFM</b>	<b>OV FPM</b>	<b>5" SP</b>		<b>5-1/2" SP</b>		<b>6" SP</b>		<b>6-1/2" SP</b>		<b>7" SP</b>		<b>7-1/2" SP</b>		<b>8" SP</b>		<b>8-1/2" SP</b>		<b>9" SP</b>		<b>10" SP</b>	
		<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>	<b>RPM</b>	<b>BHP</b>
29000	1415	902	33.2																		
33000	1611	911	36.2	951	40.4	991	44.7	1029	49.2												
37000	1806	922	39.6	962	43.9	1000	48.4	1037	53.0	1073	57.7	1108	62.6	1142	67.6	1175	72.7				
41000	2001	939	43.5	976	47.9	1012	52.5	1048													

**490**
**DOUBLE WIDTH**

Wheel Diameter: 48 Outlet Area: 24.85 sq. ft.

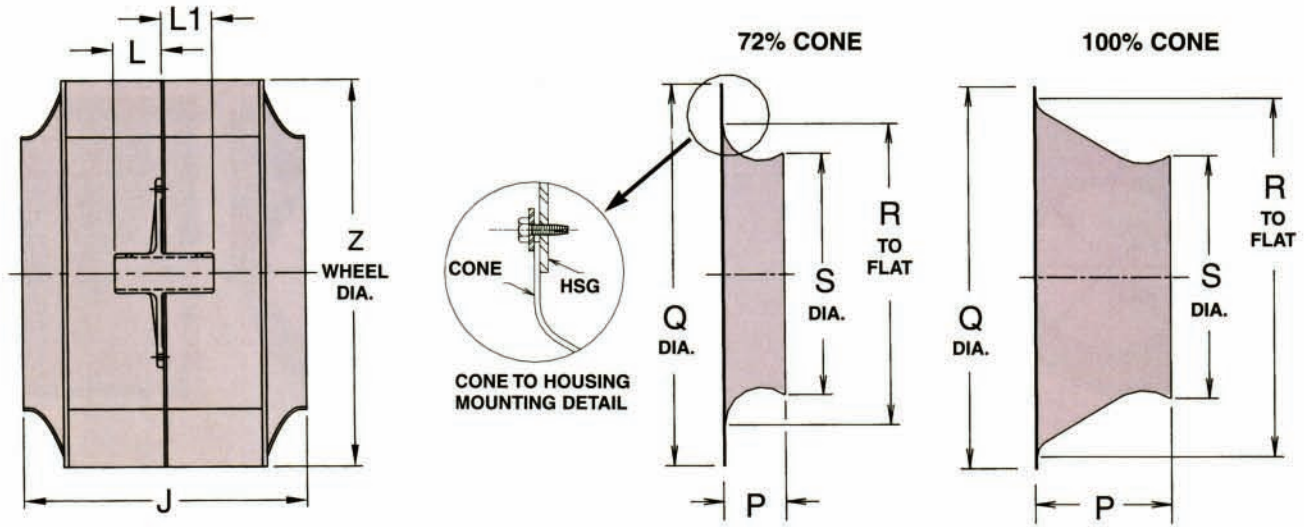
**RPM**
**1312**

CFM	OV FPM	1/4" SP		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	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
13000	523	195	0.7	248	1.2																
18000	724	229	1.1	273	1.8	350	3.4	422	5.5												
23000	926	268	1.7	307	2.6	372	4.5	432	6.5	490	9.0	544	11.7								
28000	1127	310	2.5	344	3.6	402	5.9	455	8.1	504	10.6	553	13.4	600	16.5	645	19.8	687	23.2	733	29.5
33000	1328	353	3.7	383	4.9	437	7.6	485	10.2	529	12.9	571	15.7	612	18.8	653	22.1	694	25.7		
38000	1529	397	5.2	424	6.6	474	9.6	518	12.6	559	15.6	597	18.7	635	21.9	671	25.3	707	28.8	742	32.7
43000	1730	443	7.1	467	8.6	513	12.0	554	15.4	592	18.8	628	22.2	663	25.7	696	29.2	728	32.9	760	36.7
48000	1932	489	9.4	511	11.1	553	14.8	592	18.6	628	22.4	662	26.3	694	30.1	725	33.9	755	37.8	785	41.8
53000	2133	535	12.3	555	14.1	594	18.1	631	22.3	665	26.5	697	30.7	728	35.0	757	39.2	786	43.4	813	47.6
58000	2334	582	15.7	600	17.7	636	22.0	671	26.5	703	31.1	734	35.7	763	40.3	791	45.0	818	49.6	845	54.1
68000	2736	677	24.4	692	26.7	723	31.6	753	36.7	783	42.0	811	47.4	838	52.8	863	58.2	888	63.7	913	69.1
78000	3139	772	35.9	786	38.6	813	44.1	839	49.8	866	55.7	891	61.8	916	67.9	940	74.1	963	80.3	986	86.5
88000	3541	867	50.8	880	53.8	904	59.9	928	66.3	951	72.7	974	79.4	997	86.2	1019	93.1	1041	100.0	1062	107.0
98000	3944	963	69.3	974	72.7	996	79.5	1018	86.4	1039	93.5	1060	100.8	1081	108.2	1102	115.7	1122	123.3	1142	131.0
108000	4346	1059	92.0	1069	95.7	1089	103.1	1109	110.7	1129	118.4	1148	126.3	1167	134.3	1186	142.4	1205	150.7	1223	159.0
118000	4748	1155	119.3	1165	123.2	1183	131.3	1201	139.5	1219	147.9	1237	156.4	1255	165.0	1272	173.7	1290	182.6	1307	191.6
128000	5151	1252	151.5	1260	155.8	1277	164.5	1294	173.4	1311	182.3	1327	191.4	1344	200.6	1360	210.0	1376	219.4	1392	229.0
138000	5553	1348	189.0	1356	193.7	1372	203.1	1388	212.6	1403	222.2	1419	231.9	1434	241.7	1449	251.7	1464	261.8	1479	271.9
148000	5956	1445	232.4	1452	237.4	1467	247.5	1482	257.6	1496	267.9	1511	278.2	1525	288.7	1539	299.3				
158000	6358	1541	282.1	1548	287.4																
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
40000	1610	782	38.2	849	46.9	913	56.2	972	65.9												
46000	1851	804	43.7	864	52.4	923	61.9	980	72.0	1088	93.7										
52000	2093	835	50.6	889	59.5	941	69.0	994	79.1	1097	101.5	1194	125.6	1285	150.9						
58000	2334	870	58.8	921	68.2	969	77.9	1017	88.2	1110	110.4	1203	135.1	1293	161.6	1377	189.3				
64000	2575	909	67.9	956	78.0	1002	88.4	1046	99.0	1133	121.5	1218	146.0	1302	172.9	1385	201.5	1463	231.5	1538	262.4
70000	2817	950	78.0	995	89.0	1039	100.1	1081	111.4	1162	134.6	1241	159.4	1318	186.1	1396	214.9	1472	245.6	1546	277.6
80000	3219	1023	96.8	1064	109.6	1105	122.3	1144	135.0	1219	160.4	1290	186.6	1360	214.0	1429	242.8	1497	273.3		
90000	3622	1098	118.7	1138	133.1	1176	147.5	1212	161.9	1282	190.4	1349	219.0	1414	248.1	1477	278.0	1539	309.1		
100000	4024	1177	144.2	1214	160.1	1250	176.0	1285	192.0	1351	224.0	1414	255.7	1475	287.4	1534	319.4				
110000	4427	1258	173.7	1293	191.0	1327	208.5	1360	226.0	1423	261.3	1483	296.4	1541	331.3						
120000	4829	1341	207.8	1374	226.5	1406	245.4	1437	264.4	1498	302.6										
130000	5231	1425	247.0	1456	266.9	1487	287.1	1517	307.5												
140000	5634	1511	291.6	1541	312.8																

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.

**490 RA**

CFM	OV FPM	1/4" SP		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	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
13000	523	198	0.7	261	1.4																
18000	724	227	1.0	278	1.9	369	3.9														
23000	926	262	1.6	305	2.6	382	4.9	453	7.5	517	10.4										
28000	1127	301	2.3	338	3.4	405	6.0	468	8.9	527	12.0	582	15.4	633	19.1						
33000	1328	342	3.2	375	4.5	434	7.4	490	10.6	543	14.0	593	17.6	642	21.4	688	25.5	732	29.8	774	34.3
38000	1529	383	4.4	414	5.9	467	9.1	517	12.5	565	16.3	611	20.2	656	24.2	699	28.4	741	32.9	781	37.6
43000	1730	425	5.9	454	7.6	503	11.1	549	14.8	592	18.8	634	23.0	675	27.4	715	31.9	754	36.6	792	41.4
48000	1932	468	7.7	495	9.6	540	13.4	582	17.5	623	21.7	662	26.2	700	30.9	736	35.8	773	40.7	808	45.8
53000	2133	511	9.9	536	12.0	579	16.2	618	20.6	656	25.1	692	29.8	727	34.8	762	40.0	795	45.3	829	50.7
58000	2334	554	12.5	578	14.8	619	19.4	656	24.1	691	28.9	725	33.9	758	39.1	790	44.6	822	50.2	853	56.0
63000	2535	598	15.6	620	18.1	659	23.1	694	28.1	727	33.3	759	38.6	790	44.0	821	49.7	851	55.6	880	61.6
68000	2736	642	19.1	663	21.9	700	27.3	734	32.7	765	38.2	795	43.8	825	49.5	853	55.4	882	61.5	909	67.8
73000	2938	685	23.2	706	26.2	742	32.0	774	37.8	804	43.6	832	49.5	860	55.6	887	61.8	914	68.2	941	74.7
78000	3139	730	27.9	749	31.0	784	37.3	814	43.5	843	49.7	870	55.9	897	62.3	923	68.8	948	75.4	974	82.2
83000	3340	774	33.1	792	36.5	826	43.2	855	49.8	883	56.3	909	63.0	935	69.7	959	76.5	984	83.4	1008	90.5
88000	3541	818	39.0	836	42.6	868	49.7	897	56.7	924	63.7	949	70.7	973	77.7	997	84.9	1020	92.1	1043	99.5
98000	3944	907	52.9	923	56.9	953	64.9	980	72.7	1006	80.5	1029	88.3	1052	96.1	1074	103.9	1096	111.8	1117	119.8
108000	4346	997	69.9	1011	74.3	1039	83.1	1065	91.8	1089	100.4	1111	109.0	1133	117.5	1154	126.1	1174	134.7		
118000	4748	1086	90.2	1100	95.1	1126	104.7	1150	114.2	1173	123.7										
128000	5151	1176	114.2	1189	119.5																
CFM	OV FPM	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		10" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
40000	1610	824	44.0	861	49.1	896	54.3	931	59.8												
45000	1811	834	48.2	870	53.5	904	58.9	938	64.5	971	70.3	1002	76.2	1033	82.3	1063	88.5				
50000	2012	850	53.0	883	58.5	916	64.1	948	69.9	980	75.9	1011	82.0	1041	88.2	1070	94.6	1099	101.1	1155	114.6
55000	2213	870	58.4	901	64.2	932	70.0	962	76.0	992	82.1	1022	88.4	1051	94.8	1079	101.4	1107	108.1	1162	121.9
60000	2414	893	64.2	922	70.3	951	76.5	980	82.7	1009	89.1	1037	95.6	1064	102.2	1092	108.9	1119	115.8	1172	129.9
65000	2616	919	70.4	947	76.8	975	83.4	1002	90.0	1029	96.7	1055	103.4	1081							



### WHEELS

FAN SIZE	Z	J	Wt.-Less Hub
135	13-7/32	9-5/8	12
150	14-9/16	10-5/8	15
165	16-3/16	11-3/4	18
182	17-13/16	13	23
200	19-11/16	14-5/16	28
222	21-9/16	15-11/16	34
245	24	17-15/32	47
270	26-7/16	19-9/32	67
300	29-1/8	21-3/16	86
330	32-3/8	23-17/32	105
365	35-9/16	25-7/8	128
402	39-3/8	28-9/16	157
445	43-7/16	31-23/32	274
490	48	35-1/32	322

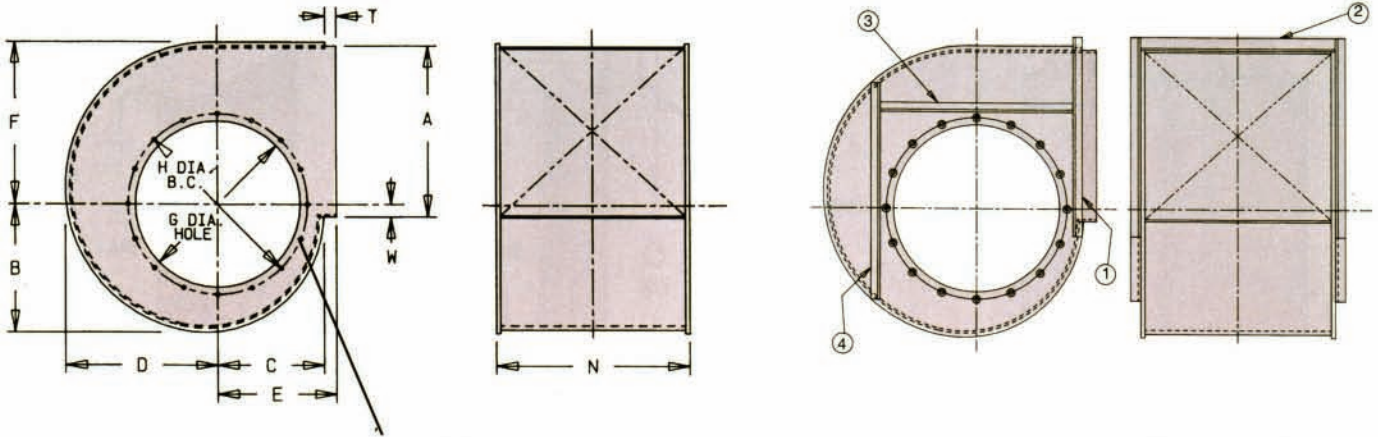
### INLET CONES

FAN SIZE	P		Q		R		S		WEIGHT	
	100%	72%	100%	72%	100%	72%	100%	72%	100%	72%
135	5-1/32	2-11/32	14-3/8	14-3/8	13-11/32	11-31/64	9-3/64	8-25/32	2.7	1.9
150	5-39/64	2-17/32	15-3/4	15-3/4	14-11/16	12-17/32	10	9-23/32	3.2	2.3
165	6-11/64	2-13/16	17-3/8	17-3/8	16-11/32	13-7/8	11-1/8	10-27/32	4.0	2.9
182	6-3/4	3-7/64	19-3/8	19-3/8	17-31/32	15-3/16	12-1/4	11-61/64	4.8	3.5
200	7-33/64	3-25/64	21-1/4	21-1/4	19-7/8	16-5/8	13-17/32	13-5/16	6.0	4.3
222	8-15/64	3-49/64	23-1/4	23-1/4	21-25/32	18-5/16	14-27/32	14-9/16	7.2	5.2
245	9-3/16	4-3/16	25-1/2	25-1/2	24-1/4	20-7/16	16-5/8	16-9/64	8.8	6.3
270	10-5/32	4-9/16	28	28	26-11/16	22-3/16	18-5/16	18-1/32	13.2	9.5
300	11-7/32	5-1/32	31-1/8	31-1/8	29-13/32	24-1/2	20-3/16	19-51/64	16.2	11.7
330	12-7/16	5-17/32	34-1/2	34-1/8	32-43/64	27-1/32	22-1/2	22-3/32	21.6	15.1
365	13-23/32	6-1/4	37-7/8	37-1/2	35-15/16	29-3/4	24-3/4	24-35/64	24.2	17.4
402	15-9/64	6-3/4	42-1/8	41-1/2	39-3/4	32-3/4	27-3/8	27-3/64	29.4	24.4
445	16-21/32	7-9/16	45-1/4	45-3/4	43-13/16	36-1/8	30-3/16	30	36.0	30.4
490	18-1/4	8-17/64	50-1/8	50-1/8	48-7/16	39-15/16	33-1/8	33-3/32	61.5	49.0

### STANDARD WHEEL BORE DATA (in.) and HUB WEIGHTS (lbs.)

BORE SIZES	FAN SIZES 135 thru 182			FAN SIZES 200 thru 270			FAN SIZES 300 thru 402			FAN SIZES 445 & 490			
	L	KEYWAY	HUB	L	KEYWAY	HUB	L	KEYWAY	HUB	L	KEYWAY	HUB	L1
15/16	2-3/16	1/4 x 1/8	5										
1-3/16	2-3/16	1/4 x 1/8	5										
1-7/16	2-3/16	3/8 x 3/16	7	3-5/8	3/8 x 3/16	15							
1-11/16	2-3/16	3/8 x 3/16	7	3-5/8	3/8 x 3/16	15	5	3/8 x 3/16	31				
1-15/16	2-3/16	1/2 x 1/4	7	3-5/8	1/2 x 1/4	18	5	1/2 x 1/4	31				
2-3/16	2-3/16	1/2 x 1/4	7	3-5/8	1/2 x 1/4	18	5	1/2 x 1/4	31				
2-7/16	2-1/4	5/8 x 5/16	10	3-5/8	5/8 x 5/16	19	3-5/8	5/8 x 5/16	31				
2-11/16	2-1/4	5/8 x 5/16	10	3-5/8	5/8 x 5/16	19	3-5/8	5/8 x 5/16	31				
2-15/16	2-1/4	3/4 x 3/8	10	3-5/8	3/4 x 3/8	21	3-5/8	3/4 x 3/8	32	4-5/8	3/4 x 3/8	66	2-3/16
3-3/16	2-1/4	3/4 x 1/8	10	3-5/8	3/4 x 1/8	21	3-5/8	3/4 x 1/8	32	4-5/8	3/4 x 1/8	64	2-3/16
3-7/16	2-1/4	7/8 x 3/16	12	3-5/8	7/8 x 3/16	20	3-5/8	7/8 x 3/16	30	4-5/8	7/8 x 3/16	78	2-3/16
3-11/16	2-1/4	7/8 x 3/16	12	3-5/8	7/8 x 3/16	20	3-5/8	7/8 x 3/16	30	4-5/8	7/8 x 3/16	75	2-3/16
3-15/16	2-1/4	1 x 1/4	12	3-5/8	1 x 1/4	20	3-5/8	1 x 1/4	30	4-5/8	1 x 1/4	72	2-3/16
4-3/16	2-1/4	1 x 1/4	12	3-5/8	1 x 1/4	20	3-5/8	1 x 1/4	30	4-5/8	1 x 1/4	90	2-3/16
4-7/16				3-5/8	1 x 1/4	30	5	1 x 1/4	40	4-5/8	1 x 1/4	86	2-3/16
4-11/16							5	1-1/4 x 1/4	40	4-5/8	1-1/4 x 1/4	82	2-3/16
4-15/16							5	1-1/4 x 1/4	40				

- Notes: 1. Wheels available clockwise or counter-clockwise rotation. Hubs mounted on inlet side of wheel. Hub bore tolerance: Nominal inch diameter +0.001/-0.000 in.  
 2. Size 135 thru 402 wheels with 1/16" increment hub bores have cast iron, straight bore hubs.



**MOUNTING BOLT CIRCLE**  
 All holes equally spaced  
 Sizes 135 - 182: 8 Holes .201" Diameter  
 Sizes 200 - 445: 16 Holes .344" Diameter  
 Size 490: 24 Threaded Holes 1/2-13" Diameter

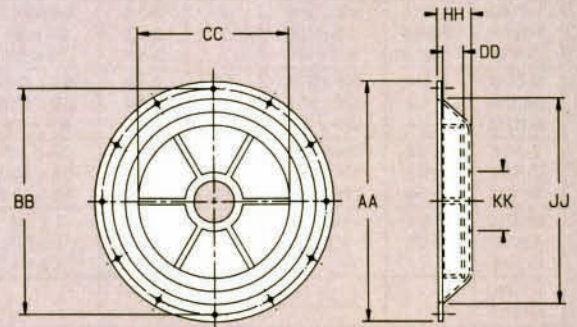
RECOMMENDED BRACING SCHEDULE	Fan Size	Angle Size (In.)	Items Req'd.
	135 - 182	1/8 x 3/4 x 3/4	3 and 4
	200 - 270	1/8 x 1/2 x 1/2	2, 3 and 4
	300 - 402	1/8 x 2 x 2	1, 2, 3 and 4
	445 - 490	Included	

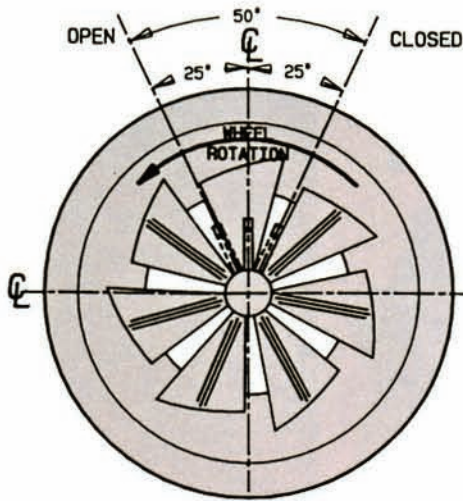
### HOUSINGS

FAN SIZE	A	B	C	D	E	F	G	H	N		W	T	WGT. (lbs)	
									100%	72%			100%	72%
135	14-1/8	10-15/32	8-11/16	12-15/32	11-5/16	13-1/4	13-5/8	15	19-9/32	13-27/32	1-3/32	2-13/16	50	41
150	15-13/16	11-1/2	9-1/2	13-23/32	12-1/16	14-9/16	15-1/8	16-1/2	21-1/4	15-1/16	1-15/32	2-13/16	59	49
165	17-3/16	12-3/4	10-9/16	15-7/32	12-7/8	16-5/32	16-5/8	18-1/8	23-5/8	16-13/16	1-9/32	2-13/16	72	59
182	19-1/8	14	11-19/32	16-23/32	13-7/8	17-3/4	18-1/2	20-1/8	25-31/32	18-5/8	1-5/8	2-13/16	86	71
200	20-3/4	15-23/32	13-1/16	18-23/32	15-3/8	19-7/8	20-1/4	22-1/4	28-23/32	20-3/8	1-3/8	2-13/16	132	105
222	23-7/16	17-5/32	14-7/32	20-7/16	16-5/16	21-23/32	22-1/16	24-1/16	31-7/16	22-7/16	2-1/4	2-13/16	157	126
245	25-9/16	19	15-13/16	22-21/32	18	24-3/32	24-1/2	26-1/8	34-31/32	24-31/32	1-31/32	3-5/8	194	155
270	28-3/16	20-7/8	17-11/32	24-29/32	19-1/4	26-1/2	27	29	38-1/2	27-3/16	2-7/32	3-5/8	231	184
300	31-9/16	22-15/16	19-1/32	27-3/8	20-7/8	29-1/8	29-3/4	32-3/16	42-7/16	30-3/8	2-31/32	3-5/8	280	224
330	34-3/8	25-3/8	21-1/16	30-5/16	22-9/16	32-1/4	33	35-3/8	47-7/32	33-25/32	2-19/32	3-7/16	370	302
365	38-5/16	27-27/32	23-1/16	33-1/4	24-5/8	35-3/8	36-5/16	38-3/4	51-27/32	37-1/4	3-7/16	3-13/16	445	364
402	42	30-3/4	25-15/32	36-3/4	27-1/2	39-1/8	40	43	57-1/2	41-1/16	3-3/8	4-3/16	547	446
445	46-1/2	33-27/32	28	40-1/2	30-1/16	43-1/8	44	46-1/2	63-7/16	45-7/16	3-29/32	5	801	670
490	51-1/16	37-11/32	30-29/32	44-11/16	32-15/16	47-9/16	48-3/4	51-1/4	70-3/32	50-5/32	3-31/32	5-1/2	982	819

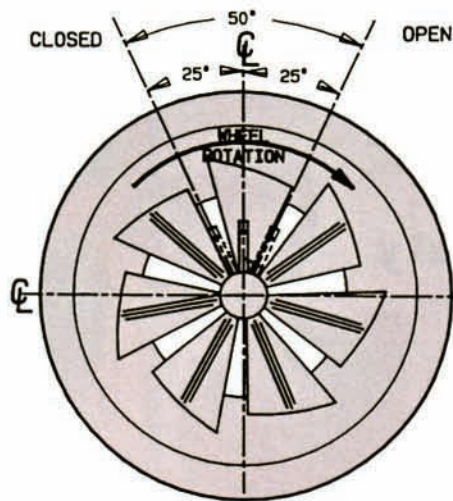
### SHAFT COOLER ASSEMBLY

BORE RANGE	AA (O.A. Dia.)	BB (B.C. Dia.)	HH	JJ (To Flat)	KK (Shaft)	WHEEL	
						CC	DD
15/16	15-1/2	14-1/2	2-11/16	13	2-1/2	4	1-1/2
1-3/16 thru 1-11/16	15-1/2	14-1/2	2-11/16	13	2-1/2	6	1-1/2
1-15/16 thru 2-3/16	15-1/2	14-1/2	2-11/16	13	2-1/2	8	2
2-7/16 thru 3-3/16	20-1/2	19-1/4	2-15/16	17-1/2	5	8	2
3-7/16 thru 4-15/16	20-1/2	19-1/4	2-15/16	17-1/2	5	13	2

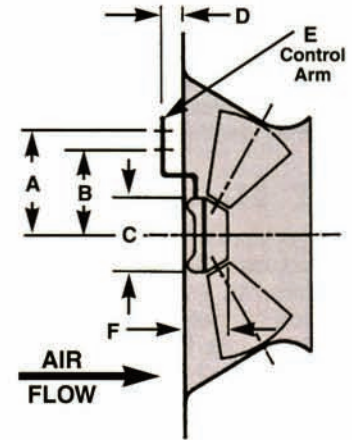




Inlet Side of CW Fan  
CW IVC Shown



Inlet Side of CCW Fan  
CCW IVC Shown



### INLET VOLUME CONTROL

FAN SIZE	CENTER SIZE	A		B		C	D		E		F	WEIGHT (lbs)
		350°F	650°F	350°F	650°F	350/650°F	350°F	650°F	350°F	650°F	350/650°F	
135	2-1/2	6-5/16	6-1/16	NA	NA	6-1/4	1-3/4	3-1/8	3/16 x 1	1/4 x 1-1/2	2-11/16	10
150	2-1/2	6-5/16	6-1/16	NA	NA	6-1/4	1-3/4	3-1/8	3/16 x 1	1/4 x 1-1/2	2-11/16	11
165	2-1/2	6-5/16	6-1/16	NA	NA	6-1/4	1-3/4	3-1/8	3/16 x 1	1/4 x 1-1/2	2-11/16	12
182	2-1/2	7-1/8	6-1/16	6-1/16	NA	6-1/4	1-3/4	3-1/8	3/16 x 1	1/4 x 1-1/2	2-11/16	13
200	2-1/2	7-1/8	6-1/16	6-1/16	NA	6-1/4	1-3/4	3-1/8	3/16 x 1	1/4 x 1-1/2	2-11/16	16
222	2-1/2	7-1/8	6-1/16	6-1/16	NA	6-1/4	1-3/4	3-1/8	3/16 x 1	1/4 x 1-1/2	2-11/16	18
245	2-1/2	7-1/8	6-1/16	6-1/16	NA	6-1/4	1-3/4	3-1/8	3/16 x 1	1/4 x 1-1/2	2-11/16	21
270	3-1/2	8	6-1/16	6-1/16	5-1/16	7-7/8	1-13/16	3-1/4	3/8 x 1	1/4 x 1-1/2	3-7/32	28
300	3-1/2	8	6-1/16	6-1/16	5-1/16	7-7/8	1-13/16	3-1/4	3/8 x 1	1/4 x 1-1/2	3-7/32	31
300	5	11-23/32	NA	10-7/32	NA	10-3/8	-1-3/16	NA	3/8 x 1	NA	4-1/4	31
330	3-1/2	8	6-1/16	6-1/16	5-1/16	7-7/8	1-13/16	3-1/4	3/8 x 1	1/4 x 1-1/2	3-7/32	40
330	5	11-23/32	NA	10-7/32	NA	10-3/8	-1-3/16	NA	3/8 x 1	NA	4-1/4	40
365	3-1/2	8	6-1/16	6-1/16	5-1/16	7-7/8	1-13/16	3-1/4	3/8 x 1	1/4 x 1-1/2	3-7/32	49
365	5	11-23/32	NA	10-7/32	NA	10-3/8	-1-3/16	NA	3/8 x 1	NA	4-1/4	49
402	3-1/2	8	6-1/16	6-1/16	5-1/16	7-7/8	1-13/16	3-1/4	3/8 x 1	1/4 x 1-1/2	3-7/32	78
402	5	11-23/32	NA	10-7/32	NA	10-3/8	-1-3/16	NA	3/8 x 1	NA	4-1/4	78
445	3-1/2	8	6-1/16	6-1/16	5-1/16	7-7/8	1-13/16	3-1/4	3/8 x 1	1/4 x 1-1/2	3-7/32	90
445	5	11-23/32	NA	10-7/32	NA	10-3/8	-1-3/16	NA	3/8 x 1	NA	4-1/4	90
490	3-1/2	8	6-1/16	6-1/16	5-1/16	7-7/8	1-13/16	3-1/4	3/8 x 1	1/4 x 1-1/2	3-7/32	110
490	5	11-23/32	NA	10-7/32	NA	10-3/8	-1-3/16	NA	3/8 x 1	NA	4-1/4	110

NA – Not Available

CENTER SIZE	MAX. SHAFT DIA. THRU I.V.C.
2-1/2	2-3/36
3-1/2	3-1/2
5	4-11/16

#### NOTES:

- For overall I.V.C. dimensions, see Inlet Cone details on page 21.
- Actuating linkage to be furnished by customer for attachment to control arm.
- 350°F Bolt Hole Diameter at "A", 17/32".  
650°F Bolt Hole Diameter at "A", 3/8".
- 2-1/2" Center, Bolt Hole Diameter at "B", 1/4".  
3-1/2" Center, Bolt Hole Diameter at "B", 3/8".  
5" Center, Bolt Hole Diameter at "B", 17/32".

#### Formulae for Calculating Operating Torque (T) in Ft. Lbs.

$$T = .086 \left( \frac{D}{10} \right)^4 \left( \frac{N}{1000} \right)^2$$

D = Effective Wheel Diameter (in.)  
N = Operating RPM

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