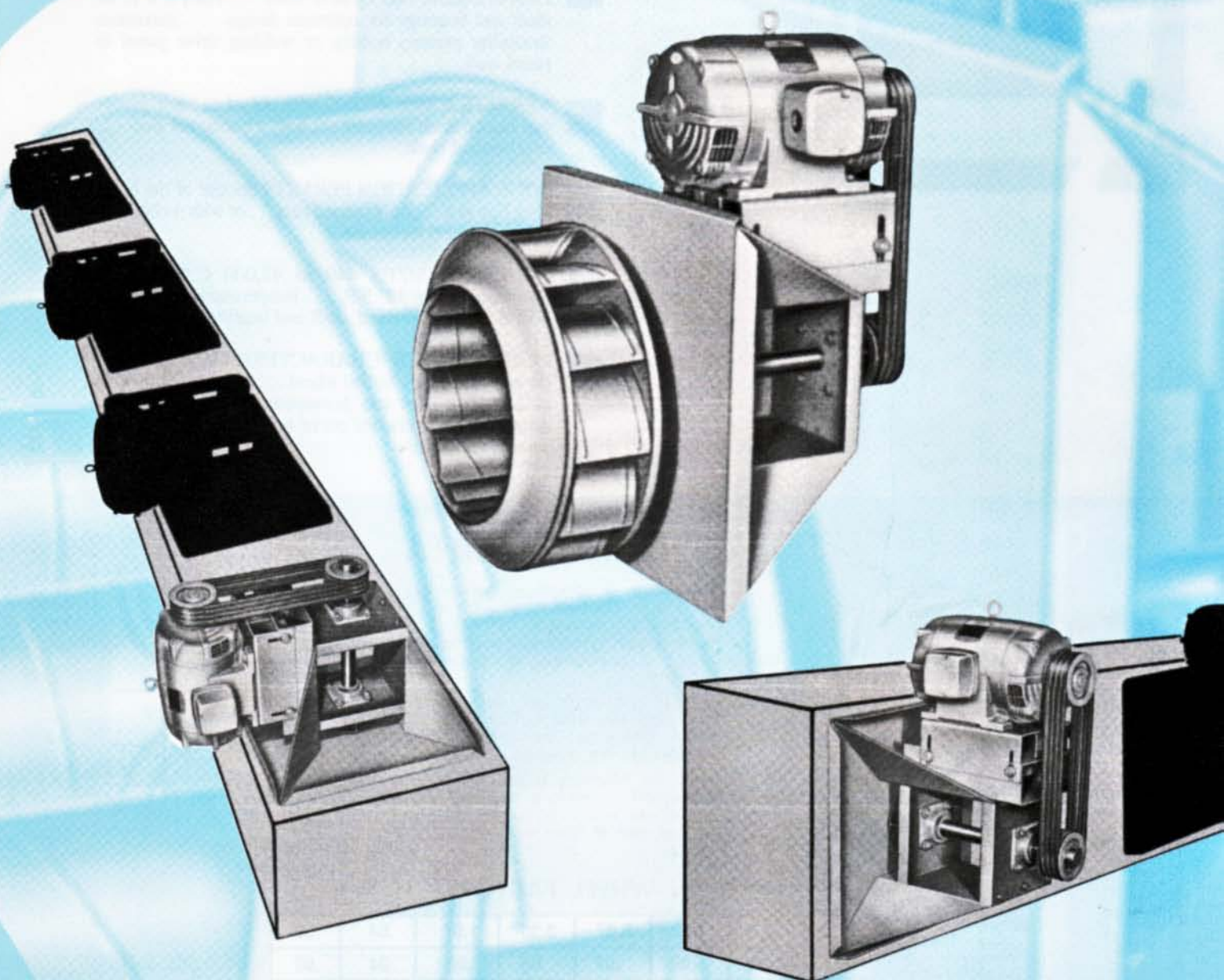


CHICAGO BLOWER CORPORATION

SQA PLUG FANS

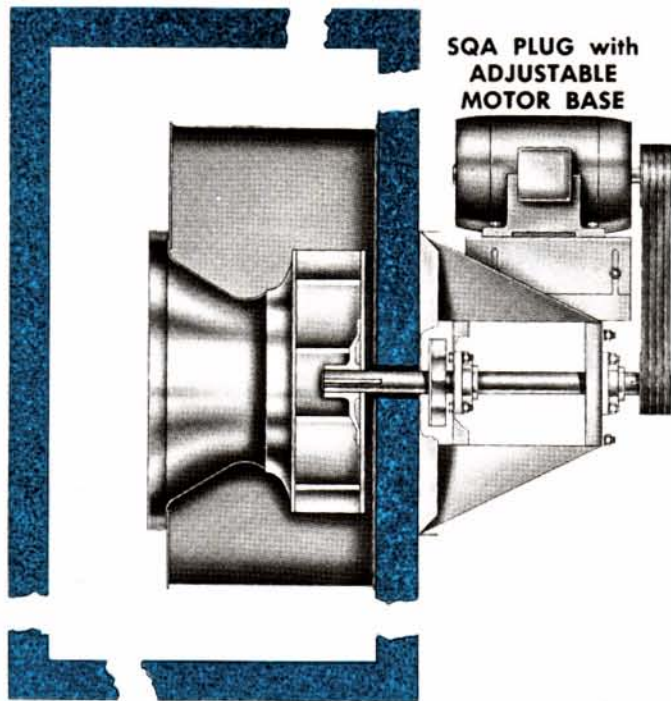
DESIGN 44

AIRFOIL



CHICAGO BLOWER CORPORATION
an ISO 9001 Company

1675 GLEN ELLYN ROAD • GLENDALE HEIGHTS, IL 60139 • PHONE 630/858-2600 • FAX 630/858-7172
www.chicagoblower.com Email: fans@chicagoblower.com



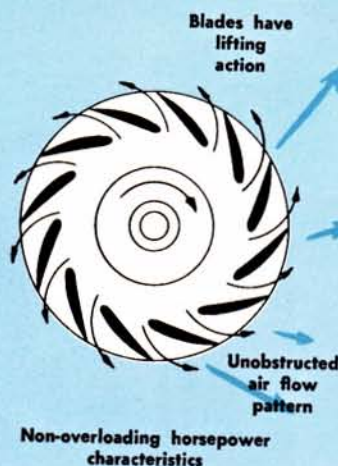
New Improved Design Reduces Installation Cost — Easy Mounting — Greater Operating Range

DESIGN FEATURES

Chicago Airfoil SQA Plug Fans are designed for easy mounting in Ovens . . . Driers . . . Kilns . . . can be installed in Penthouses . . . Panel Walls . . . Ceilings . . . Floors . . . just cut a hole large enough for the fan shaft and . . . install.

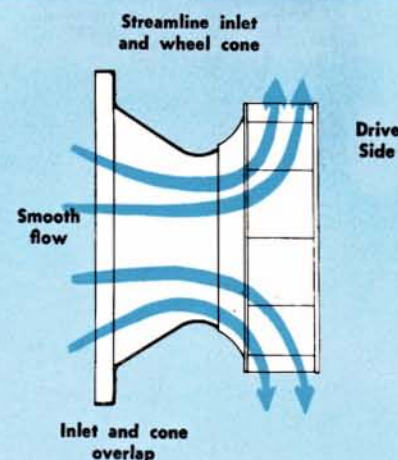
- **UNIQUE DESIGN** permits installation of SQA PLUG FAN to a panel wall up to 6" thick . . . class I, II or III shaft and bearings for optimum design . . . maximum flexibility permits bolting or welding drive panel to panel wall.
- **VERSATILE MOUNTING** with only four basic panels that can be flush mounted . . . with a horizontal shaft . . . or a vertical shaft.
- **WIDE APPLICATION PERMITS** the use of the SQA Plug Fan as a . . . fully housed unit . . . or with no housing — open wheel technique.
- **FOURTEEN SIZES** 440 to 48,000 C.F.M. . . . pressures 1/4" to 13" S.P. . . . temperatures — 50°F to 800°F. Three classes of shaft and bearings.
- **PERFORMANCE CHARACTERISTICS** are high because of the . . . Airfoil wheel . . . which is 20 to 40% quieter . . . uses less horsepower . . . has a steep pressure characteristics curve which compensates for system variations.

FOR INLET PLENUM DESIGN
AND PERFORMANCE FACTORS
SEE CURRENT CHICAGO AIRFOIL
FAN KIT BULLETIN



OPEN WHEEL DATA

1. Turbulence is caused by sharp bends and abrupt changes in area beyond the fan housing discharge. This loss can be prevented by baffles or turning vanes — or by application of open wheel technique.
2. Stability, efficiency and steep pressure curve are inherent in Chicago Airfoil design. Therefore, multibladed annular diffusers are not required.
3. Apply the following factors to Capacity Tables and maintain a minimum clearance of one wheel radius between wheel and one, two or three walls of 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

* Note: Assume housing is used — select O.V. from Cap. Tables — $VP = (OV/4005)^2$.

$$\frac{SP}{VP} = \frac{\text{STATIC PRESSURE}}{\text{VELOCITY PRESSURE}}$$

CHICAGO AIRFOIL SQA PLUG FANS / **RUGGEDLY**

FAN PARTS

- 1 WHEELS** Size 12 $\frac{1}{4}$ through 44 $\frac{1}{2}$ are furnished in mild steel continuously welded with cast iron hub and straight bore . . . suitable for a maximum temperature of 800°F. All wheels are suitable for the maximum speed shown in the tables at 70°F. Wheels can be installed through opening for inlet cone . . . burner . . . or coil access openings. Specify rotation, CW or CCW as viewed from drive side. AIRFOIL wheels are furnished as standard.
- 2 INLET CONES** Are designed to provide maximum adjustability and prevent wheel rubbing in both axial and radial planes . . . very important in temperature applications because of shaft expansion. All inlet cones are heavy gauge steel . . . sizes 12 $\frac{1}{4}$ through 33 have integrally spun inlet ring . . . the size 36 $\frac{1}{2}$ -44 $\frac{1}{2}$ inlet is furnished without an inlet ring. A separate rolled angle inlet ring is supplied as an accessory if an inlet connection is required.
- 3 DRIVE PANELS** Are of X type . . . gusseted design provides maximum rigidity and strength . . . large flush mounting surface for minimum panel wall loading. All sides are flanged . . . offers flexible and economical installation. Pre-punched to accommodate adjustable motor base feature. Outboard bearing bracket is bolted and removable for easy bearing surface.
- 4 ADJUSTABLE MOTOR BASES** Are of heavy gauge steel and designed to be mounted on either side of bearing bracket and closed portion of X gusset by bolting . . . threaded belt tension adjustment and positive locking . . . pre-punched to fit all motor frame sizes as shown on back cover.
- 5 HOUSINGS** Are of heavy gauge steel . . . Housings are continuous welded. Can be bolted or welded to panel wall . . . which becomes housing closure plate. Housings are universal in rotation and discharge.
- 6 INLET VOLUME CONTROL** Provides reduced operating costs and more precise air control. Inlet vanes mounted entirely within inlet cone. Available for either 350°F or 600°F.
- 7 BEARINGS** Are heavy duty ball through size 36 $\frac{1}{2}$ and heavy duty roller on sizes 40 $\frac{1}{4}$ & 44 $\frac{1}{2}$. All bearings are grease lubricated . . . flanged type. Engineered for horizontal or vertical operation . . . designed for a minimum of 100,000 hours average life. Class I, II or III bearings are furnished as determined by fan speed and overhang . . . see chart 1, page 4.
- 8 SHAFTS** Are of SAE 1040 to 1045 turned, ground and polished steel . . . keyways are 4 inches plus hub length to permit wheel adjustment to accommodate 0" to 6" panel wall thickness and wheel running clearance. Shafts are class I, II or III as determined by chart 1, page 4.

APPLICATIONS

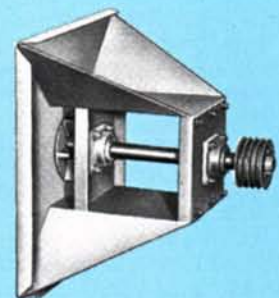
- ovens
- dryers
- kilns
- smoke houses
- air heaters
- space heaters
- parts washers
- degreasers
- air curtains
- permanent pleaters
- evaporators
- cloth dust collectors



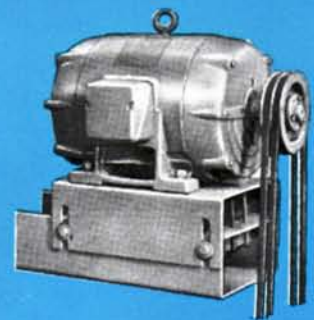
1A. AIRFOIL WHEEL



1B. "B" WHEEL



3. DRIVE PANEL



5. HOUSING



6. INLET VANE CONTROL

CONSTRUCTED . . . QUIETER . . . MORE EFFICIENT

HIGH TEMPERATURE AND ALTITUDE FAN SELECTION

Fan capacity tables are based on standard air at 70°F., at sea level. For other operating conditions and for shaft overhang due to panel wall thickness it is necessary to correct the HP and SP of the fan and check the maximum allowable RPM for both wheel and shaft per Charts I, II, III and IV.

For a Plug fan with housing and a 4" panel wall thickness to handle 3900 CFM at 2" SP at 700°F. at 3500 feet altitude, correct as follows:

1. Select from Chart II at 700°F. and 3500 feet altitude = 2.5 correction factor.
2. 2" SP X 2.50 = 5" SP (at 70°F. and SL).
3. Select the proper size fan for 3900 CFM at 5" SP. Select a size 18 1/4 fan with a performance of 3900 CFM at 5" SP, requiring 4.33 BHP at 1981 RPM (at 70°F. and SL).
4. Correct the BHP by dividing 4.33 by 2.50, BHP = 1.73, which is the corrected BHP at 700°F. and 3500 feet altitude.
5. Refer to Chart IV and locate maximum allowable RPM @ 70°F. for wheel at 3592 RPM and shaft at 3173 RPM.
6. The wheel only limiting RPM must be checked using wheel deration Chart III at 700°F. and the maximum wheel RPM from the performance table: Size 18 1/4 = 3592 RPM X .76 = 2730 RPM wheel maximum speed. This is safely above operating speed.
7. The class (size) of shaft required is calculated from Chart I based on the panel wall thickness. At 700°F. with a panel wall thickness of 4" from Chart I, Class II shaft, using an overhang deration of .86 and shaft temperature deration of .94 from Chart III we have a composite ratio of .81 times the maximum shaft RPM listed in Chart IV = 3173 RPM for size 18 1/4.
8. At 700°F. the safe fan RPM = .81 x 3173 = 2570 RPM. Since the required fan speed of 1981 RPM is lower than the derated shaft speed of 2570 RPM, the selection of Class II shaft and bearings is proper.

9. For open wheel application the RPM and BHP at 700°F. must be further corrected by the open wheel factors on Page 2. At 3900 CFM and 5" SP (at 70°F. and SL), SP/VP = 20.0, the corrected BHP at 700°F. will be 1.15 X 1.73 = 2.0 BHP. The corrected RPM will be 1.03 X 1981 = 2040 RPM. This speed is below the maximum Class II shaft speed at 700°F. and 4" overhang = .86 X .94 X 3173 = 2570 RPM and hence Class II shaft and bearings are satisfactory.

AIRFOIL SQA PLUG FAN SELECTION AT STANDARD 70°F. AIR

Airfoil SQA Plug fans have a maximum wheel and shaft speed limit shown in Chart IV. Fans are available with either Class I, II or III shafts and bearings that will accommodate a panel wall thickness of 0" to 6" maximum. The required fan speed, shaft overhang and temperature determine the size, or class, of shaft and bearing. As the thickness of the panel wall increases, the maximum RPM limit decreases. It is necessary to derate the maximum wheel RPM of the fan at 70°F., temperature correction factors must be used from Chart III.

HIGH TEMPERATURE FAN SELECTION

Airfoil SQA Plug fans perfectly suited for handling high temperature gases or air in ovens, etc. For temperature above 300°F. with a maximum operating limit of 800°F., a shaft cooler is used to dissipate heat.

All fans should be operated within the maximum RPM limits shown in the performance tables (pages 5-11) and these limits should be derated per Chart I and per Chart III shown below. Factors in these two charts, multiplied together give a composite deration factor to be applied to the maximum wheel RPM listed in the tables.



Shaft cooler circulate air over inboard bearing.

CHART I AIRFOIL WHEEL OVERHANG DERATION

FAN SIZE	CLASS	PANEL WALL THICKNESS							
		0"	1"	2"	3"	4"	5"	6"	
12 1/4	1	1.00	0.98	0.84	0.72	0.64	0.56	0.50	
	2	1.00	1.00	1.00	0.96	0.84	0.75	0.67	
	3	1.00	1.00	1.00	1.00	1.00	0.95	0.85	
13 1/2	1	1.00	0.99	0.85	0.74	0.65	0.58	0.52	
	2	1.00	1.00	1.00	0.98	0.86	0.77	0.69	
	3	1.00	1.00	1.00	1.00	1.00	0.98	0.88	
15	1	1.00	1.00	0.87	0.76	0.67	0.60	0.54	
	2	1.00	1.00	1.00	1.00	0.89	0.80	0.72	
	3	1.00	1.00	1.00	1.00	1.00	1.00	0.92	
16 1/2	1	1.00	0.99	0.85	0.75	0.67	0.60	0.54	
	2	1.00	1.00	1.00	1.00	0.89	0.80	0.72	
	3	1.00	1.00	1.00	1.00	1.00	1.00	0.92	
18 1/4	1	1.00	0.94	0.83	0.73	0.66	0.60	0.54	
	2	1.00	1.00	1.00	0.95	0.86	0.77	0.70	
	3	1.00	1.00	1.00	1.00	1.00	0.97	0.88	
20	1	1.00	0.94	0.83	0.74	0.67	0.61	0.55	
	2	1.00	1.00	1.00	0.96	0.87	0.79	0.72	
	3	1.00	1.00	1.00	1.00	1.00	0.99	0.90	
22 1/4	1	1.00	0.97	0.86	0.77	0.70	0.63	0.58	
	2	1.00	1.00	1.00	1.00	0.91	0.83	0.76	
	3	1.00	1.00	1.00	1.00	1.00	1.00	0.95	
24 1/2	1	1.00	0.93	0.83	0.75	0.68	0.62	0.57	
	2	1.00	1.00	1.00	0.98	0.89	0.81	0.74	
	3	1.00	1.00	1.00	1.00	1.00	1.00	0.93	
27	1	1.00	1.00	0.92	0.84	0.76	0.70	0.64	
	2	1.00	1.00	1.00	1.00	0.96	0.88	0.81	
	3	1.00	1.00	1.00	1.00	1.00	1.00	0.99	
30	1	1.00	1.00	0.93	0.85	0.78	0.72	0.66	
	2	1.00	1.00	1.00	1.00	0.98	0.90	0.84	
	3	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
33	1	1.00	1.00	0.96	0.88	0.81	0.75	0.69	
	2	1.00	1.00	1.00	1.00	1.00	0.94	0.87	
	3	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
36 1/2	1	1.00	1.00	0.97	0.89	0.82	0.74	0.69	
	2	1.00	1.00	1.00	1.00	1.00	0.94	0.87	
	3	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
40 1/4	1	1.00	1.00	1.00	1.00	1.00	0.99	0.92	
	2	1.00	1.00	1.00	1.00	1.00	0.96	0.90	

Multiply maximum RPM at 70°F. by deration factor to determine if within safe speed.

CHART II

Air Temp. (°F.)	ALTITUDE & TEMPERATURE CORRECTION FACTORS							
	ALTITUDE (Feet)							
0	0	2000	2500	3000	3500	4000	4500	5000
0	.87	.94	.96	.98	.99	1.01	1.03	1.05
40	.94	1.02	1.04	1.06	1.08	1.10	1.12	1.14
70	1.00	1.08	1.10	1.12	1.14	1.16	1.18	1.20
80	1.02	1.10	1.12	1.14	1.16	1.19	1.21	1.23
120	1.09	1.18	1.20	1.23	1.25	1.28	1.30	1.32
160	1.17	1.26	1.29	1.31	1.34	1.36	1.39	1.42
200	1.25	1.34	1.37	1.40	1.42	1.45	1.48	1.51
250	1.34	1.45	1.47	1.50	1.53	1.56	1.59	1.62
300	1.43	1.55	1.58	1.61	1.64	1.67	1.70	1.74
400	1.62	1.75	1.79	1.82	1.85	1.89	1.93	1.96
500	1.81	1.96	1.99	2.03	2.07	2.11	2.15	2.19
600	2.00	2.16	2.20	2.24	2.29	2.33	2.38	2.42
700	2.19	2.36	2.41	2.46	2.50	2.55	2.60	2.65
800	2.38	2.57	2.62	2.66	2.72	2.76	2.81	2.86

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

CHART III MAXIMUM ALLOWABLE WHEEL SPEED

SAFE SPEED DERATION		
TEMP.	STEEL WHEEL	STEEL SHAFT
70°	1.00	1.00
200°	.94	1.00
300°	.90	.99
400°	.86	.98
500°	.82	.97
600°	.79	.96
700°	.76	.94
800°	.68	.93

Multiply maximum RPM by deration factor to determine if within safe speed.

CHART IV RPM FOR AIRFOIL PLUG FAN AT 70°F.

SIZE	STANDARD		HIGH RPM	
	SHAFT	WHEEL	SHAFT	WHEEL
12 1/4	4839	5288	—	—
13 1/2	4391	4657	—	—
15	3847	4063	—	—
16 1/2	3509	4071	—	—
18 1/4	3173	3592	—	—
20	2895	3225	—	—
22 1/4	2483	2852	—	—
24 1/2	2344	2638	—	—
27	2067	2359	—	—
30	1807	2089	—	—
33	1552	1885	1552	2080
36 1/2	1344	1703	1344	1792
40 1/4	1220	1493	1220	1709
44 1/2	1098	1312	1098	1568

CHICAGO AIRFOIL SQA PLUG FAN

WHEEL		13-7/32 in. diameter		3.46 ft. circumference		OUTLET		.88 sq. ft. inside area		INLET		16-1/2 in. outside dia.		1.48 sq. ft. inside area		SIZE							
MAXIMUM RPM 4839 – CONTINUOUSLY WELDED @ 70°F										DERATE FOR OVERHANG AND TEMPERATURE								12 1/4					
CFM	OV FPM	1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		7/8" SP		1" SP		1-1/4" SP		1-1/2" SP		2" SP		2-1/2" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
440	500	684	.02																				
528	600	743	.03			832	.04	921	.05														
616	700	810	.04			889	.05	964	.06	1041	.08												
704	800	880	.05			954	.06	1021	.08	1087	.09	1154	.11	1220	.13								
792	900	953	.06			1022	.08	1086	.09	1145	.11	1204	.13	1263	.15	1322	.17						
880	1000	1027	.07			1092	.09	1153	.11	1210	.13	1263	.15	1315	.17	1369	.19	1476	.24	1580	.29		
968	1100	1104	.09			1166	.11	1222	.13	1276	.15	1328	.18	1378	.20	1425	.22	1521	.27	1618	.32		
1056	1200	1183	.11			1240	.14	1294	.16	1345	.18	1395	.20	1442	.23	1487	.25	1576	.30	1664	.35	1841	.46
1144	1300	1263	.14			1316	.16	1368	.19	1416	.21	1464	.23	1509	.26	1553	.28	1636	.33	1717	.39	1881	.50
1232	1400	1344	.16			1394	.19	1442	.22	1489	.24	1534	.27	1578	.29	1620	.32	1701	.37	1777	.43	1928	.55
1320	1500	1426	.20			1474	.22	1518	.25	1563	.28	1607	.31	1648	.33	1689	.36	1768	.42	1841	.48	1982	.60
1408	1600	1511	.23			1554	.26	1597	.29	1638	.32	1681	.35	1721	.38	1760	.41	1836	.47	1908	.53	2041	.65
1496	1700	1594	.27			1635	.30	1676	.33	1714	.36	1755	.39	1794	.43	1832	.46	1905	.52	1975	.58	2104	.71
1584	1800	1678	.31			1717	.35	1756	.38	1793	.41	1831	.44	1868	.48	1906	.51	1975	.58	2044	.64	2171	.78
1672	1900	1762	.36			1800	.40	1837	.43	1872	.46	1909	.50	1943	.53	1980	.57	2048	.64	2112	.71	2238	.85
1760	2000	1846	.41			1883	.45	1918	.49	1951	.52	1987	.56	2019	.60	2054	.63	2122	.71	2183	.78	2305	.93
1836	2200	2017	.54			2053	.58	2084	.62	2114	.66	2146	.70	2176	.74	2208	.78	2269	.86	2331	.94	2444	1.10
2112	2400	2188	.68			2221	.73	2252	.77	2279	.81	2308	.86	2336	.90	2365	.94	2422	1.03	2478	1.12	2588	1.30
2288	2600	2359	.85			2391	.90	2418	.96	2445	.99	2473	1.04	2499	1.09	2526	1.13	2579	1.23	2630	1.32	2734	1.52
2464	2800	2536	1.05			2561	1.10	2590	1.15	2613	1.20	2640	1.25	2663	1.30	2688	1.35	2738	1.45	2786	1.56	2883	1.76
CFM	OV FPM	3" SP		4" SP		5" SP		6" SP		7" SP		8" SP		9" SP		10" SP		11" SP		12" SP		13" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1144	1300	2187	.77																				
1232	1400	2228	.82																				
1320	1500	2267	.87	2534	1.19																		
1408	1600	2308	.93	2566	1.26																		
1496	1700	2355	1.00	2605	1.33	2839	1.68																
1584	1800	2407	1.07	2644	1.40	2873	1.76																
1672	1900	2464	1.15	2689	1.49	2912	1.85	3121	2.24	3321	2.66												
1760	2000	2525	1.24	2737	1.58	2961	1.96	3157	2.35	3351	2.76	3538	3.21										
1836	2200	2656	1.44	2849	1.79	3042	2.16	3237	2.57	3427	3.01	3605	3.46	3777	3.94								
2112	2400	2789	1.65	2974	2.03	3150	2.42	3328	2.83	3505	3.27	3682	3.75	3849	4.24	4008	4.74	4169	5.27				
2288	2600	2927	1.90	3107	2.30	3271	2.70	3434	3.13	3598	3.58	3762	4.06	3927	4.57	4083	5.09	4234	5.62	4385	6.17		
2464	2800	3067	2.17	3241	2.60	3402	3.03	3563	3.47	3705	3.93	3857	4.42	4010	4.93	4162	5.47	4312	6.02	4455	6.59	4589	7.16
2640	3000	3214	2.49	3378	2.93	3535	3.38	3682	3.84	3823	4.32	3964	4.82	4106	5.33	4250	5.88	4391	6.44	4533	7.03	4671	7.64
2816	3200	3360	2.82	3519	3.29	3671	3.77	3815	4.26	3960	4.75	4083	5.26	4215	5.79	4347	6.34	4483	6.92	4615	7.50	4749	8.12
2992	3400	3508	3.18	3664	3.69	3809	4.19	3949	4.70	4083	5.23	4209	5.75	4334	6.29	4459	6.86	4583	7.44	4710	8.04	4836	8.66
3168	3600	3661	3.59	3812	4.13	3949	4.65	4087	5.19	4217	5.74	4342	6.29	4460	6.85	4579	7.42	4697	8.01	4814	8.63		
3344	3800	3817	4.03	3960	4.60	4095	5.16	4225	5.71	4353	6.28	4475	6.87	4594	7.45	4705	8.04	4817	8.64				
3520	4000	3972	4.51	4108	5.10	4242	5.70	4367	6.28	4491	6.87	4611	7.48	4727	8.10	4839	8.71						

The BHP shown does not include belt drive loss.

The performance shown is for fan with outlet duct.

WHEEL		14-9/16 in. diameter		3.81 ft. circumference		OUTLET		1.07 sq. ft. inside area		INLET		18 in. outside dia.		1.76 sq. ft. inside area		SIZE 13½							
MAXIMUM RPM 4391 – CONTINUOUSLY WELDED @ 70°F																		DERATE FOR OVERHANG AND TEMPERATURE					
CFM	OV FPM	1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		7/8" SP		1" SP		1-1/4" SP		1-1/2" SP		2" SP		2-1/2" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
535	500	621	.03																				
642	600	674	.03	755	.06	836	.07																
749	700	735	.04	807	.06	875	.08	945	.10														
856	800	799	.06	866	.08	926	.09	986	.12	1047	.14	1107	.16										
963	900	865	.07	927	.09	985	.11	1039	.14	1093	.16	1146	.18	1200	.21								
1070	1000	932	.09	991	.11	1046	.14	1098	.16	1146	.18	1193	.21	1242	.24	1339	.29	1434	.35				
1177	1100	1002	.11	1058	.14	1109	.16	1158	.19	1205	.21	1249	.24	1293	.27	1380	.32	1468	.39				
1284	1200	1073	.14	1125	.17	1174	.19	1220	.22	1266	.25	1308	.28	1349	.30	1430	.36	1510	.43	1671	.57		
1391	1300	1146	.17	1194	.20	1241	.23	1285	.25	1328	.28	1369	.31	1409	.34	1485	.41	1558	.47	1707	.61	1853	.77
1498	1400	1220	.20	1265	.23	1308	.26	1351	.30	1392	.33	1432	.36	1470	.39	1543	.46	1612	.52	1749	.67	1888	.83
1605	1500	1294	.24	1338	.27	1377	.31	1418	.34	1458	.37	1495	.41	1533	.44	1604	.51	1671	.58	1798	.73	1928	.89
1712	1600	1371	.28	1410	.32	1449	.35	1486	.39	1525	.42	1562	.46	1597	.49	1666	.57	1731	.64	1852	.79	1972	.96
1819	1700	1446	.33	1484	.37	1521	.40	1555	.44	1592	.48	1628	.52	1662	.56	1729	.63	1792	.71	1909	.87	2023	1.04
1926	1800	1523	.38	1558	.42	1593	.46	1627	.50	1661	.54	1695	.58	1730	.62	1792	.70	1855	.78	1970	.95	2077	1.12
2033	1900	1599	.44	1633	.48	1667	.52	1699	.56	1732	.61	1763	.65	1797	.69	1858	.78	1916	.86	2031	1.04	2134	1.22
2140	2000	1675	.50	1709	.55	1740	.59	1770	.64	1803	.68	1832	.73	1864	.77	1926	.86	1981	.96	2092	1.13	2195	1.32
2254	2200	1830	.65	1863	.70	1891	.75	1918	.80	1947	.85	1975	.89	2004	.94	2059	1.04	2115	1.14	2218	1.34	2316	1.54
2358	2400	1985	.83	2015	.88	2043	.93	2068	.99	2094	1.04	2120	1.09	2146	1.14	2198	1.25	2249	1.36	2348	1.58	2441	1.79
2782	2800	2141	1.03	2170	1.09	2194	1.15	2219	1.20	2244	1.26	2268	1.32	2292	1.38	2340	1.49	2386	1.61	2481	1.85	2570	2.07
2996	2800	2301	1.28	2324	1.34	2350	1.40	2371	1.46	2396	1.52	2416	1.58	2439	1.64	2484	1.77	2528	1.89	2616	2.14	2702	2.40
CFM	OV FPM	3" SP		4" SP		5" SP		6" SP		7" SP		8" SP		9" SP		10" SP		11" SP		12" SP		13" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1391	1300	1984	.94																				
1498	1400	2021	1.00																				
1605	1500	2067	1.06	2299	1.45																		
1712	1600	2094	1.13	2328	1.53																		
1819	1700	2137	1.22	2364	1.61	2576	2.04																
1926	1800	2184	1.31	2399	1.70	2607	2.14																
2033	1900	2236	1.40	2440	1.81	2642	2.25	2832	2.72	3013	3.23												
2140	2000	2291	1.51	2484	1.92	2678	2.37	2865	2.86	3041	3.36	3210	3.90										
2254	2200	2410	1.75	2585	2.17	2780	2.63	2937	3.13	3110	3.66	3271	4.21	3427	4.79								
2568	2400	2531	2.01	2699	2.46	2858	2.93	3020	3.44	3180	3.98	3341	4.56	3493	5.15	3637	5.76	3783	6.41				
2782	2600	2656	2.31	2819	2.79	2968	3.28	3116	3.80	3265	4.35	3414	4.93	3563	5.55	3706	6.18	3842	6.83	3979	7.50		
2996	2800	2783	2.64	2941	3.15	3087	3.68	3224	4.21	3362	4.78	3500	5.37	3639	5.99	3777	6.64	3913	7.31	4042	8.01	4164	8.70
3210	3000	2916	3.02	3065	3.55	3208	4.11	3341	4.67	3469	5.24	3597	5.85	3726	6.48	3856	7.14	3984	7.82	4113	8.54	4238	9.28
3424	3200	3049	3.43	3193	3.99	3331	4.58	3462	5.18	3584	5.77	3705	6.39	3825	7.04	3944	7.70	4068	8.40	4188	9.11	4309	9.87
3638	3400	3183	3.87	3325	4.49	3456	5.09	3583	5.71	3705	6.35	3819	6.99	3933	7.64	4046	8.33	4159	9.03	4274	9.76	4388	10.52
3852	3600	3222	4.36	3459	5.02	3583	5.65	3709	6.30	3827	6.97	3940	7.64	4047	8.32	4155	9.01	4262	9.73	4368	10.48		
4066	3800	3464	4.90	3593	5.59	3716	6.27	3834	6.94	3950	7.63	4061	8.34	4169	9.05	4269	9.76	4371	10.58				
4280	4000	3604	5.48	3728	6.19	3849	6.93	3963	7.62	4075	8.35	4184	9.08	4289	9.84	4391	10.58						



AIRFOIL SQA PLUG FAN

SIZE 15		WHEEL		16-3/16 in. diameter		4.24 ft. circumference		OUTLET		1.32 sq. ft. inside area		INLET		19-5/8 in. outside dia.		2.10 sq. ft. inside area								
		MAXIMUM RPM 3847 — CONTINUOUSLY WELDED @ 70°F										DERATE FOR OVERHANG AND TEMPERATURE												
		CFM	OV FPM	1-1/4" SP RPM	BHP	1-1/2" SP RPM	BHP	3-1/4" SP RPM	BHP	1" SP RPM	BHP	1-1/4" SP RPM	BHP	1-1/2" SP RPM	BHP	1-3/4" SP RPM	BHP	2" SP RPM	BHP	2-1/2" SP RPM	BHP	3" SP RPM	BHP	3-1/2" SP RPM
860	500	559	.03																					
792	600	607	.04		.08																			
924	700	662	.06		.10																			
1056	800	719	.07		.12	942	.17																	
1188	900	778	.09		.14	983	.20	1080	.26															
1320	1000	839	.11	942	.17	1031	.23	1118	.29	1205	.36	1290	.44											
1452	1100	902	.14	998	.20	1085	.27	1164	.33	1242	.40	1321	.48	1400	.56									
1584	1200	966	.17	1057	.24	1139	.31	1214	.38	1287	.45	1359	.53	1432	.61	1504	.70							
1716	1300	1031	.21	1117	.28	1196	.35	1268	.43	1336	.50	1402	.58	1469	.67	1536	.76	1668	.95					
1848	1400	1098	.25	1178	.33	1253	.40	1323	.48	1389	.56	1451	.64	1513	.73	1575	.82	1700	1.02					
1980	1500	1165	.30	1240	.38	1312	.46	1379	.54	1444	.63	1504	.72	1562	.80	1619	.90	1735	1.10	1851	1.31			
2112	1600	1234	.35	1304	.44	1373	.52	1437	.61	1499	.70	1558	.79	1613	.89	1667	.98	1775	1.18	1885	1.40	1994	1.64	
2244	1700	1302	.41	1369	.50	1433	.59	1496	.69	1556	.78	1613	.88	1668	.98	1718	1.07	1820	1.28	1923	1.50	2025	1.74	
2376	1800	1370	.47	1434	.57	1495	.67	1557	.77	1613	.87	1669	.97	1722	1.07	1773	1.17	1869	1.39	1966	1.61	2063	1.85	
2508	1900	1439	.54	1500	.65	1559	.75	1617	.86	1673	.96	1725	1.07	1778	1.17	1828	1.28	1921	1.50	2012	1.73	2104	1.97	
2640	2000	1508	.62	1566	.73	1623	.84	1678	.95	1733	1.06	1783	1.17	1834	1.28	1882	1.40	1976	1.63	2062	1.86	2150	2.11	
2794	2200	1647	.81	1702	.93	1753	1.05	1803	1.17	1853	1.29	1904	1.41	1950	1.53	1996	1.65	2084	1.90	2169	2.15	2248	2.41	
3168	2400	1787	1.02	1839	1.15	1885	1.28	1931	1.41	1978	1.55	2024	1.68	2070	1.82	2114	1.95	2197	2.21	2278	2.48	2356	2.76	
3432	2600	1927	1.28	1975	1.42	2020	1.56	2063	1.70	2106	1.84	2148	1.99	2190	2.13	2233	2.28	2313	2.56	2390	2.85	2466	3.14	
3696	2800	2071	1.58	2115	1.73	2156	1.88	2195	2.03	2236	2.18	2275	2.33	2315	2.49	2355	2.64	2432	2.96	2505	3.26	2578	3.57	
CFM	OV FPM	4" SP		4-1/2" SP		5" SP		5-1/2" SP		6" SP		7" SP		8" SP		9" SP		10" SP		11" SP		12" SP		
1980	1500	2070	1.78																					
2112	1600	2096	1.89	2199	2.13																			
2244	1700	2128	1.99	2225	2.25	2319	2.52																	
2376	1800	2159	2.10	2256	2.37	2346	2.64	2435	2.92															
2508	1900	2196	2.23	2288	2.50	2378	2.78	2469	3.07	2549	3.36	2712	3.98											
2640	2000	2235	2.36	2324	2.64	2410	2.92	2497	3.22	2578	3.52	2737	4.13	2889	4.81									
2794	2200	2327	2.68	2406	2.96	2484	3.25	2564	3.55	2644	3.86	2799	4.51	2945	5.18	3085	5.90							
3168	2400	2429	3.04	2502	3.32	2573	3.62	2645	3.93	2718	4.25	2863	4.91	3007	5.62	3143	6.35	3273	7.10	3405	7.89			
3432	2600	2537	3.45	2606	3.75	2671	4.05	2738	4.37	2805	4.69	2938	5.37	3072	6.08	3207	6.85	3335	7.63	3458	8.42	3581	9.25	
3696	2800	2647	3.89	2715	4.22	2778	4.54	2840	4.86	2902	5.19	3026	5.89	3150	6.62	3275	7.39	3399	8.19	3522	9.03	3638	9.87	
3960	3000	2759	4.38	2825	4.72	2887	5.07	2949	5.42	3007	5.76	3122	6.47	3237	7.22	3353	7.99	3471	8.82	3586	9.65	3702	10.54	
4224	3200	2874	4.93	2937	5.29	2998	5.65	3059	6.01	3116	6.39	3226	7.12	3335	7.88	3442	8.68	3550	9.50	3661	10.37	3769	11.24	
4488	3400	2992	5.54	3052	5.90	3111	6.28	3169	6.66	3225	7.05	3335	7.84	3437	8.62	3540	9.43	3642	10.28	3743	11.14	3847	12.05	
4752	3600	3113	6.19	3170	6.58	3225	6.97	3282	7.37	3338	7.78	3444	8.60	3546	9.43	3642	10.26	3740	11.12	3836	12.01			
5016	3800	3234	6.90	3291	7.32	3344	7.73	3397	8.14	3451	8.56	3555	9.42	3655	10.29	3752	11.17	3843	12.05					
5280	4000	3355	7.64	3412	8.11	3464	8.55	3518	8.99	3567	9.41	3668	10.30	3766	11.20									

The BHP shown does not include belt drive loss.

The performance shown is for fan with outlet duct.

SIZE 16 1/2		WHEEL		17-13/16 in. diameter		4.66 ft. circumference		OUTLET		1.59 sq. ft. inside area		INLET		21-5/8 in. outside dia.		2.55 sq. ft. inside area							
MAXIMUM RPM 3509 - CONTINUOUSLY WELDED @ 70°F										DERATE FOR OVERHANG AND TEMPERATURE													
CFM	OV FPM	1/4" SP		1/2" SP		3/4" SP		1" SP		1-1/4" SP		1-1/2" SP		1-3/4" SP		2" SP		2-1/2" SP		3" SP		3-1/2" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
795	500	508	.04																				
964	600	552	.06	684	.10																		
1113	700	601	.07	716	.12																		
1272	800	653	.09	758	.14	857	.21																
1431	900	708	.11	806	.17	894	.24	981	.31														
1590	1000	762	.14	856	.21	938	.28	1016	.35	1096	.44	1173	.53										
1749	1100	820	.17	907	.25	986	.32	1058	.40	1129	.49	1201	.58	1272	.68								
1908	1200	878	.21	961	.29	1036	.37	1104	.46	1170	.54	1235	.64	1301	.74	1367	.85						
2067	1300	938	.25	1016	.34	1087	.43	1153	.52	1215	.61	1275	.71	1336	.81	1396	.92	1516	1.15				
2226	1400	998	.30	1071	.40	1139	.49	1203	.58	1263	.68	1319	.78	1376	.89	1431	1.00	1545	1.24				
2385	1500	1059	.36	1127	.46	1193	.56	1254	.66	1313	.76	1367	.87	1419	.98	1471	1.09	1578	1.33	1683	1.59		
2544	1600	1122	.42	1186	.53	1248	.64	1307	.74	1363	.85	1416	.96	1466	1.07	1515	1.19	1613	1.43	1713	1.70	1812	1.98
2703	1700	1183	.49	1244	.61	1303	.72	1360	.83	1414	.95	1466	1.06	1516	1.18	1562	1.30	1655	1.55	1748	1.82	1841	2.10
2862	1800	1246	.57	1304	.69	1359	.81	1415	.93	1466	1.05	1517	1.17	1566	1.30	1612	1.42	1699	1.68	1787	1.95	1875	2.24
3021	1900	1308	.66	1364	.79	1417	.91	1470	1.04	1520	1.17	1568	1.29	1616	1.42	1661	1.55	1746	1.82	1829	2.10	1912	2.39
3180	2000	1370	.76	1424	.89	1475	1.02	1525	1.15	1575	1.29	1621	1.42	1667	1.56	1711	1.69	1796	1.97	1875	2.25	1954	2.55
3498	2200	1497	.98	1547	1.12	1593	1.27	1639	1.41	1685	1.56	1731	1.71	1773	1.85	1814	2.00	1895	2.30	1972	2.61	2044	2.92
3816	2400	1624	1.24	1672	1.40	1713	1.56	1756	1.71	1798	1.88	1840	2.03	1882	2.20	1921	2.36	1997	2.68	2071	3.01	2142	3.34
4134	2600	1751	1.55	1795	1.72	1836	1.89	1875	2.06	1915	2.23	1953	2.41	1991	2.58	2030	2.76	2102	3.10	2173	3.45	2241	3.81
4452	2800	1883	1.91	1923	2.00	1960	2.28	1996	2.46	2033	2.64	2068	2.83	2104	3.02	2140	3.20	2211	3.59	2277	3.96	2343	4.33
CFM	OV FPM	4" SP		4-1/2" SP		5" SP		5-1/2" SP		6" SP		7" SP		8" SP		9" SP		10" SP		11" SP		12" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
2385	1500	1881	2.17																				
2544	1600	1905	2.29	1999	2.57																		
2703	1700	1934	2.41	2022	2.72	2107	3.05																
2862	1800	1963	2.55	2051	2.87	2133	3.20	2213	3.54														
3021	1900	1996	2.70	2079	3.02	2162	3.37	2244	3.72	2317	4.06	2465	4.83										
3180	2000	2032	2.86	2112	3.20	2191	3.54	2270	3.90	2344	4.27	2488	5.02	2626	5.83								
3498	2200	2115	3.24	2187	3.58	2258	3.93	2331	4.30	2403	4.67	2544	5.47	2676	6.29	2804	7.16						
3816	2400	2208	3.68	2274	4.02	2339	4.39	2405	4.76	2471	5.15	2602	5.95	2734	6.81	2858	7.70	2976	8.61	3095	9.58		
4134	2600	2307	4.18	2368	4.54	2428	4.91	2489	5.29	2549	5.69	2671	6.51	2793	7.37	2915	8.30	3031	9.24	3143	10.21	3255	11.21
4452	2800	2406	4.71	2468	5.11	2526	5.50	2582	5.89	2638	6.29	2751	7.14	2863	8.02	2977	8.96	3090	9.92	3201	10.93	3307	11.97
4770	3000	2508	5.31	2568	5.72	2624	6.14	2681	6.56	2734	6.98	2838	7.84	2943	8.75	3048	9.68	3155	10.68	3260	11.69	3365	12.77
5088	3200	2613	5.97	2670	6.40	2725	6.84	2780	7.28	2832	7.74	2932	8.63	3031	9.55	3129	10.52	3227	11.50	3328	12.56	3426	13.62
5406	3400	2720	6.70	2774	7.14	2828	7.61	2881	8.07	2932	8.54	3031	9.50	3125	10.44	3218	11.42	3310	12.45	3402	13.50	3497	14.59
5724	3600	2830	7.50	2882	7.97	2932	8.44	2984	8.93	3034	9.42	3131	10.41	3224	11.42	3311	12.43	3399	13.46	3487	14.54		
6042	3800	2940	8.36	2992	8.87	3040	9.36	3088	9.85	3137	10.36	3232	11.40	3322	12.47	3411	13.53	3493	14.59				
6360	4000	3050	9.25	3101	9.82	3149	10.35	3198	10.88	3242	11.39	3334	12.48	3423	13.57	3509	14.70						



AIRFOIL SQA PLUG FAN

WHEEL		19-11/16 in. diameter		5.15 ft. circumference		OUTLET		1.95 sq. ft. inside area		INLET		23-3/4 in. outside dia.		3.07 sq. ft. inside area		SIZE 18 1/4							
MAXIMUM RPM 3173 – CONTINUOUSLY WELDED @ 70°F										DERATE FOR OVERHANG AND TEMPERATURE													
CFM	OV FPM	1/4" SP		1/2" SP		3/4" SP		1" SP		1-1/4" SP		1-1/2" SP		1-3/4" SP		2" SP		2-1/2" SP		3" SP		3-1/2" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
975	500	459	.06																				
1170	600	499	.07	618	.13																		
1365	700	544	.09	647	.15																		
1560	800	591	.11	685	.18	775	.26																
1755	900	640	.14	729	.21	808	.29	887	.39														
1950	1000	689	.17	774	.25	848	.34	919	.43	991	.54	1060	.65										
2145	1100	741	.21	820	.30	891	.40	966	.49	1021	.60	1086	.71	1150	.83								
2340	1200	794	.26	869	.36	936	.46	998	.56	1068	.67	1117	.78	1177	.91	1236	1.04						
2535	1300	848	.31	918	.42	983	.52	1042	.63	1098	.75	1152	.87	1207	.99	1263	1.12	1371	1.41				
2730	1400	902	.37	968	.49	1030	.60	1087	.72	1142	.84	1193	.96	1244	1.09	1294	1.22	1397	1.51				
2925	1500	957	.44	1019	.56	1079	.69	1134	.81	1187	.94	1236	1.06	1283	1.19	1330	1.33	1426	1.63	1522	1.95		
3120	1600	1014	.52	1072	.66	1128	.78	1181	.91	1232	1.04	1281	1.16	1326	1.31	1370	1.46	1459	1.75	1549	2.08	1638	2.43
3315	1700	1070	.60	1125	.74	1178	.88	1230	1.02	1279	1.16	1326	1.30	1371	1.45	1412	1.59	1496	1.90	1581	2.23	1665	2.57
3510	1800	1126	.70	1179	.85	1229	.99	1279	1.14	1372	1.29	1372	1.44	1416	1.59	1457	1.74	1536	2.06	1616	2.39	1696	2.74
3705	1900	1183	.81	1233	.96	1281	1.12	1329	1.27	1375	1.43	1418	1.58	1461	1.74	1502	1.90	1579	2.23	1654	2.57	1729	2.92
3900	2000	1239	.92	1287	1.09	1334	1.25	1379	1.41	1424	1.58	1465	1.74	1508	1.90	1547	2.07	1624	2.41	1696	2.76	1767	3.13
4290	2200	1354	1.20	1399	1.37	1440	1.55	1482	1.73	1523	1.91	1565	2.09	1603	2.27	1640	2.45	1713	2.82	1783	3.19	1848	3.57
4680	2400	1469	1.52	1512	1.71	1549	1.90	1587	2.10	1626	2.30	1663	2.49	1701	2.69	1737	2.89	1806	3.28	1872	3.68	1936	4.09
5070	2600	1583	1.89	1623	2.11	1660	2.31	1696	2.52	1731	2.73	1766	2.95	1800	3.16	1835	3.38	1901	3.79	1965	4.22	2026	4.66
5460	2800	1702	2.34	1738	2.56	1772	2.78	1804	3.01	1838	3.23	1870	3.46	1902	3.69	1935	3.92	1999	4.39	2069	4.83	2118	5.30
CFM	OV FPM	4" SP		4-1/2" SP		5" SP		5-1/2" SP		6" SP		7" SP		8" SP		8" SP		10" SP		11" SP		12" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
2925	1500	1700	2.64																				
3120	1600	1722	2.79	1807	3.15																		
3315	1700	1748	2.96	1828	3.33	1906	3.74																
3510	1800	1775	3.12	1854	3.51	1928	3.92	2001	4.33														
3705	1900	1805	3.31	1880	3.70	1955	4.12	2029	4.55	2095	4.99	2229	5.91										
3900	2000	1837	3.51	1910	3.91	1981	4.33	2052	4.77	2119	5.23	2249	6.13	2375	7.13								
4290	2200	1912	3.97	1977	4.38	2042	4.81	2108	5.26	2173	5.72	2300	6.69	2420	7.69	2535	8.75						
4680	2400	1996	4.50	2066	4.92	2114	5.37	2174	5.82	2234	6.30	2353	7.27	2471	8.33	2583	9.42	2690	10.52	2798	11.65		
5070	2600	2085	5.11	2141	5.55	2196	6.00	2251	6.42	2305	6.96	2415	7.96	2525	9.02	2636	10.15	2741	11.30	2842	12.47	2943	13.69
5460	2800	2175	5.77	2231	6.25	2283	6.72	2334	7.21	2385	7.70	2487	8.73	2589	9.81	2692	10.96	2794	12.14	2894	13.37	2990	14.57
5850	3000	2267	6.50	2322	7.00	2373	7.52	2424	8.03	2471	8.54	2566	9.59	2661	10.70	2756	11.84	2853	13.06	2947	14.30	3043	15.62
6240	3200	2362	7.30	2414	7.83	2464	8.37	2514	8.91	2561	9.47	2651	10.55	2741	11.68	2829	12.87	2918	14.07	3009	15.36	3098	16.66
6630	3400	2459	8.20	2508	8.74	2557	9.30	2604	9.87	2651	10.45	2741	11.62	2825	12.78	2909	13.97	2993	15.23	3076	16.51	3161	17.85
7020	3600	2559	9.17	2606	9.76	2651	10.32	2698	10.92	2743	11.52	2830	12.74	2914	13.98	2994	15.21	3073	16.47	3153	17.79		
7410	3800	2658	10.22	2706	10.85	2749	11.46	2792	12.05	2836	12.68	2922	13.95	3004	15.25	3083	16.55	3158	17.85				
7800	4000	2757	11.32	2804	12.02	2847	12.67	2891	13.32	2931	13.94	3014	15.26	3095	16.60	3173	17.98						

The BHP shown does not include belt drive loss.

The performance shown is for fan with outlet duct.

WHEEL	21-9/16 in. diameter		5.95 ft. circumference		OUTLET		2.34 sq. ft. inside area		INLET		25-11/16 in. outside dia.		3.59 sq. ft. inside area		SIZE 20								
MAXIMUM RPM 2895 – CONTINUOUSLY WELDED @ 70°F										DERATE FOR OVERHANG AND TEMPERATURE													
CFM	OV FPM	1/4" SP		1/2" SP		3/4" SP		1" SP		1-1/4" SP		1-1/2" SP		1-3/4" SP		2" SP		2-1/2" SP		3" SP		3-1/2" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1170	500	419	.06																				
1404	600	455	.08	564	.15																		
1638	700	496	.10	590	.18																		
1872	800	539	.13	625	.21	707	.31																
2106	900	584	.17	665	.26	737	.35	810	.46														
2340	1000	629	.21	706	.31	774	.41	839	.52	904	.65	968	.78										
2574	1100	676	.26	748	.36	813	.48	873	.59	932	.72	991	.85	1050	1.00								
2808	1200	725	.31	793	.43	854	.55	911	.67	965	.80	1019	.94	1074	1.09	1128	1.25						
3042	1300	774	.37	838	.50	897	.63	951	.76	1002	.90	1062	1.04	1102	1.19	1152	1.35	1251	1.69				
3276	1400	823	.45	883	.58	940	.72	992	.86	1042	1.01	1088	1.15	1135	1.31	1181	1.47	1275	1.82				
3510	1500	873	.53	930	.68	984	.83	1035	.97	1083	1.12	1128	1.28	1171	1.44	1214	1.60	1302	1.96	1389	2.34		
3744	1600	925	.62	978	.78	1030	.94	1078	1.09	1125	1.25	1169	1.42	1210	1.58	1250	1.75	1331	2.11	1414	2.50	1495	2.91
3978	1700	976	.73	1027	.89	1075	1.06	1122	1.23	1167	1.39	1210	1.56	1251	1.74	1289	1.91	1365	2.28	1442	2.68	1519	3.09
4212	1800	1028	.84	1076	1.02	1121	1.19	1167	1.37	1210	1.55	1252	1.73	1292	1.91	1330	2.09	1402	2.47	1474	2.87	1547	3.30
4446	1900	1079	.97	1125	1.16	1169	1.34	1213	1.53	1254	1.72	1294	1.90	1333	2.09	1371	2.29	1441	2.67	1509	3.08	1578	3.51
4680	2000	1131	1.11	1175	1.31	1217	1.50	1258	1.69	1300	1.90	1337	2.09	1376	2.29	1412	2.49	1482	2.90	1547	3.31	1612	3.75
5148	2200	1235	1.44	1276	1.65	1314	1.86	1352	2.08	1390	2.29	1428	2.52	1463	2.73	1497	2.94	1563	3.38	1627	3.84	1686	4.29
5616	2400	1340	1.83	1379	2.06	1414	2.29	1449	2.52	1483	2.76	1518	2.99	1553	3.23	1585	3.47	1648	3.94	1708	4.42	1767	4.92
6084	2600	1445	2.28	1481	2.53	1516	2.78	1547	3.03	1580	3.28	1611	3.54	1643	3.79	1675	4.06	1735	4.56	1793	5.07	1849	5.60
6552	2800	1553	2.81	1586	3.08	1617	3.35	1646	3.61	1677	3.88	1706	4.16	1736	4.43	1766	4.70	1824	5.27	1879	5.80	1933	6.36
CFM	OV FPM	4" SP		4-1/2" SP		5" SP		5-1/2" SP		6" SP		7" SP		8" SP		9" SP		10" SP		11" SP		12" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
3510	1500	1552	3.17																				
3744	1600	1572	3.35	1649	3.79																		
3978	1700	1596	3.54	1669	4.01	1739	4.50																
4212	1800	1619	3.74	1692	4.22	1760	4.71	1826	5.20														
4446	1900	1647	3.97	1716	4.45	1784	4.95	1852	5.46	1912	5.99	2034	7.10										
4680	2000	1676	4.21	1743	4.70	1807	5.20	1872	5.73	1934	6.28	2053	7.36	2167	8.52								
5148	2200	1745	4.77	1804	5.26	1863	5.78	1923	6.31	1983	6.87	2099	8.03	2208	9.24	2314	10.46						
5616	2400	1822	5.41	1876	5.91	1929	6.45	1984	6.99	2038	7.56	2147	8.74	2255	10.01	2358	11.25	2455	12.60	2554	13.98		
6084	2600	1903	6.14	1954	6.67	2003	7.21	2054	7.77	2103	8.35	2204	9.56	2304	10.83	2405	12.19	2501	13.54	2594	14.98	2686	16.45
6552	2800	1985	6.93	2036	7.51	2084	8.08	2130	8.65	2176	9.25	2269	10.49	2362	11.78	2456	13.15	2549	14.58	2641	16.06	2729	17.48
7020	3000	2069	7.80	2119	8.41	2165	9.03	2212	9.64	2255	10.25	2342	11.52	2428	12.85	2515	14.22	2603	15.69	2689	17.17	2776	18.76
7488	3200	2155	8.77	2203	9.41	2248	10.05	2294	10.70	2337	11.37	2419	12.68	2501	14.03	2582	15.45	2663	16.90	2746	18.45	2827	20.01
7956	3400	2244	9.85	2289	10.50	2333	11.18	2377	11.86	2419	12.55	2501	13.95	2578	15.34	2655	16.78	2731	18.29	2807	19.83	2885	21.44
8424	3600	2335	11.02	2378	11.72	2419	12.40	2462	13.12	2503	13.84	2583	15.30	2659	16.78	2732	18.26	2805	19.78	2877	21.37		
8892	3800	2426	12.28	2468	13.03	2508	13.76	2548	14.48	2588	15.23	2666	16.75	2741	18.32	2814	19.87	2882	21.43				
9360	4000	2516	13.59	2559	14.43	2596	15.21	2638	15.99	2675	16.74	2751	18.33	2824	19.93	2895	21.60						



AIRFOIL SQA PLUG FAN

SIZE 22 1/4		WHEEL		24 in. diameter		6.28 ft. circumference		OUTLET		2.90 sq. ft. inside area		INLET		28-1/8 in. outside dia.		4.31 sq. ft. inside area							
MAXIMUM RPM 2483 – CONTINUOUSLY WELDED @ 70°F																		DERATE FOR OVERHANG AND TEMPERATURE					
CFM	OV FPM	1/4" SP RPM	BHP	1/2" SP RPM	BHP	3/4" SP RPM	BHP	1" SP RPM	BHP	1-1/4" SP RPM	BHP	1-1/2" SP RPM	BHP	1-3/4" SP RPM	BHP	2" SP RPM	BHP	2-1/2" SP RPM	BHP	3" SP RPM	BHP	3-1/2" SP RPM	BHP
1450	500	375	.07																				
1740	600	406	.09	504	.16																		
2030	700	439	.11	529	.20																		
2320	800	475	.14	558	.23	633	.34																
2610	900	514	.17	590	.28	659	.39	725	.50														
2900	1000	552	.21	625	.33	690	.45	750	.57	809	.70	864	.84										
3190	1100	592	.25	661	.38	722	.51	780	.64	834	.78	888	.93	937	1.08								
3480	1200	631	.30	699	.44	756	.58	811	.73	863	.87	912	1.02	962	1.18	1008	1.35						
3770	1300	672	.36	737	.51	792	.66	844	.82	894	.97	941	1.13	986	1.30	1032	1.47	1117	1.83				
4060	1400	713	.42	775	.59	829	.75	878	.91	926	1.08	971	1.25	1015	1.42	1057	1.60	1141	1.98				
4350	1500	755	.49	814	.68	867	.85	914	1.02	959	1.20	1004	1.38	1045	1.56	1086	1.75	1165	2.13	1241	2.54		
4640	1600	798	.57	854	.77	905	.96	951	1.14	994	1.32	1036	1.51	1077	1.71	1116	1.90	1191	2.29	1266	2.72	1336	3.16
4930	1700	841	.66	894	.87	944	1.07	989	1.27	1030	1.46	1071	1.66	1109	1.86	1148	2.07	1221	2.49	1291	2.91	1361	3.36
5220	1800	885	.76	933	.98	983	1.20	1027	1.41	1067	1.61	1106	1.82	1143	2.03	1180	2.25	1251	2.68	1319	3.12	1385	3.59
5510	1900	929	.88	975	1.10	1023	1.33	1066	1.56	1105	1.78	1143	1.99	1179	2.21	1214	2.43	1284	2.90	1349	3.36	1411	3.82
5800	2000	975	1.00	1016	1.22	1062	1.47	1104	1.72	1144	1.95	1179	2.17	1215	2.40	1249	2.64	1315	3.11	1380	3.60	1442	4.09
6380	2200	1065	1.29	1100	1.52	1141	1.79	1183	2.06	1221	2.33	1257	2.59	1289	2.83	1321	3.08	1384	3.59	1444	4.12	1504	4.66
6960	2400	1154	1.63	1188	1.88	1224	2.15	1262	2.46	1299	2.75	1333	3.04	1366	3.32	1397	3.59	1456	4.14	1512	4.69	1568	5.27
7540	2600	1252	2.06	1276	2.29	1307	2.57	1343	2.90	1378	3.22	1411	3.54	1443	3.85	1474	4.15	1529	4.74	1584	5.34	1636	5.94
8120	2800	1342	2.55	1366	2.77	1394	3.07	1425	3.40	1457	3.74	1490	4.09	1521	4.43	1551	4.77	1607	5.42	1658	6.05	1708	6.70
CFM	OV FPM	4" SP RPM	BHP	4-1/2" SP RPM	BHP	5" SP RPM	BHP	5-1/2" SP RPM	BHP	6" SP RPM	BHP	7" SP RPM	BHP	8" SP RPM	BHP	9" SP RPM	BHP	10" SP RPM	BHP	11" SP RPM	BHP	12" SP RPM	BHP
4350	1500	1381	3.40																				
4640	1600	1402	3.61	1465	4.08																		
4930	1700	1426	3.84	1488	4.32	1547	4.81																
5220	1800	1450	4.07	1512	4.57	1571	5.08	1627	5.60														
5510	1900	1474	4.32	1536	4.84	1594	5.37	1650	5.89	1704	6.44	1806	7.59										
5800	2000	1500	4.58	1560	5.11	1618	5.66	1673	6.21	1727	6.77	1832	7.93	1925	9.14								
6380	2200	1559	5.19	1614	5.73	1668	6.29	1722	6.87	1775	7.47	1875	8.70	1972	9.95	2057	11.25						
6960	2400	1622	5.86	1674	6.43	1726	7.03	1774	7.60	1824	8.23	1923	9.51	2015	10.85	2104	12.20	2186	13.60	2270	15.04		
7540	2600	1687	6.56	1739	7.20	1788	7.83	1834	8.46	1882	9.10	1972	10.40	2064	11.79	2151	13.23	2234	14.68	2311	16.16	2394	17.68
8120	2800	1757	7.35	1804	8.01	1851	8.69	1898	9.38	1943	10.05	2030	11.42	2114	12.81	2200	14.31	2282	15.84	2360	17.40	2433	18.95
8700	3000	1828	8.21	1874	8.91	1918	9.62	1962	10.33	2007	11.08	2090	12.53	2172	14.00	2250	15.47	2330	17.07	2408	18.68	2483	20.36
9280	3200	1902	9.15	1946	9.90	1989	10.63	2030	11.39	2071	12.15	2155	13.72	2232	15.26	2310	16.84	2381	18.37	2457	20.07		
9860	3400	1978	10.19	2019	10.96	2061	11.74	2102	12.53	2141	13.32	2219	14.94	2296	16.61	2370	18.25	2442	19.93				
10440	3600	2055	11.31	2096	12.12	2134	12.93	2173	13.76	2212	14.59	2287	16.28	2361	18.00	2434	19.77						
11020	3800	2131	12.49	2173	13.39	2211	14.24	2247	15.08	2285	15.96	2358	17.72	2428	19.51								
11600	4000	2209	13.76	2249	14.70	2288	15.64	2324	16.53	2359	17.42	2430	19.27										
12180	4200	2286	15.09	2326	16.11	2364	17.09	2402	18.08	2435	19.02												

The BHP shown does not include belt drive loss.

The performance shown is for fan with outlet duct.

SIZE 24½		WHEEL		26-7/16 in. diameter		6.92 ft. circumference		OUTLET		3.52 sq. ft. inside area		INLET		30-5/8 in. outside dia.		5.11 sq. ft. inside area							
MAXIMUM RPM 2344 - CONTINUOUSLY WELDED @ 70°F										DERATE FOR OVERHANG AND TEMPERATURE													
CFM	OV FPM	1-1/4" SP		1-1/2" SP		3-1/4" SP		1" SP		1-1/4" SP		1-1/2" SP		1-3/4" SP		2" SP		2-1/2" SP		3" SP		3-1/2" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1760	500	341	.08																				
2112	600	369	.11	458	.20																		
2464	700	399	.13	480	.24																		
2816	800	431	.17	507	.28	575	.41																
3168	900	467	.21	536	.34	599	.47	658	.61														
3520	1000	501	.26	568	.40	627	.54	681	.69	735	.85	785	1.02										
3872	1100	538	.31	600	.46	656	.62	708	.78	757	.95	806	1.13	851	1.31								
4224	1200	573	.37	635	.54	687	.71	737	.88	784	1.06	828	1.24	874	1.44	915	1.64						
4576	1300	610	.44	669	.63	719	.81	767	.99	812	1.18	855	1.37	895	1.57	937	1.78	1014	2.22				
4928	1400	648	.51	704	.72	753	.91	797	1.11	841	1.31	882	1.52	922	1.73	960	1.94	1036	2.40				
5280	1500	686	.60	739	.82	787	1.03	830	1.24	871	1.45	912	1.67	949	1.89	986	2.12	1058	2.58				
5632	1600	725	.70	776	.93	822	1.16	864	1.38	903	1.61	941	1.84	978	2.07	1014	2.31	1082	2.78	1150	3.30	1213	3.83
5984	1700	764	.81	812	1.05	857	1.30	898	1.54	935	1.78	973	2.01	1007	2.26	1043	2.51	1109	3.02	1172	3.53	1236	4.08
6336	1800	804	.93	847	1.18	893	1.45	933	1.71	969	1.96	1004	2.21	1038	2.46	1072	2.72	1136	3.26	1198	3.79	1258	4.35
6688	1900	844	1.06	885	1.33	929	1.62	968	1.89	1004	2.15	1038	2.41	1071	2.68	1103	2.96	1166	3.51	1225	4.07	1281	4.63
7040	2000	885	1.21	923	1.49	965	1.79	1003	2.08	1039	2.37	1071	2.63	1103	2.92	1134	3.20	1194	3.77	1253	4.37	1310	4.96
7744	2200	967	1.57	999	1.85	1036	2.17	1074	2.50	1109	2.82	1142	3.13	1171	3.43	1200	3.74	1257	4.36	1311	4.99	1366	5.65
8448	2400	1048	1.98	1079	2.28	1112	2.61	1146	2.98	1180	3.33	1211	3.68	1241	4.02	1269	4.35	1322	5.02	1373	5.69	1424	6.38
9152	2600	1137	2.50	1159	2.77	1187	3.12	1220	3.52	1251	3.91	1281	4.29	1311	4.67	1339	5.03	1389	5.74	1439	6.47	1486	7.21
9656	2800	1219	3.09	1241	3.36	1266	3.72	1294	4.12	1323	4.53	1353	4.96	1381	5.37	1409	5.78	1459	6.58	1506	7.33	1551	8.12
CFM	OV FPM	4" SP		4-1/2" SP		5" SP		5-1/2" SP		6" SP		7" SP		8" SP		9" SP		10" SP		11" SP		12" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
5280	1500	1254	4.12																				
5632	1600	1273	4.38	1331	4.95																		
5984	1700	1295	4.65	1351	5.24	1405	5.83																
6336	1800	1317	4.94	1373	5.55	1427	6.16	1478	6.79														
6688	1900	1339	5.24	1395	5.86	1448	6.50	1499	7.14	1547	7.81	1640	9.20										
7040	2000	1362	5.55	1417	6.20	1469	6.86	1519	7.53	1568	8.21	1664	9.61	1748	11.08								
7744	2200	1416	6.29	1466	6.94	1515	7.62	1564	8.33	1612	9.05	1703	10.54	1791	12.06	1868	13.64						
8448	2400	1473	7.10	1520	7.80	1568	8.52	1611	9.22	1657	9.97	1746	11.53	1830	13.15	1911	14.79	1985	16.49	2062	18.24		
9152	2600	1532	7.95	1579	8.73	1624	9.49	1666	10.26	1709	11.03	1791	12.61	1875	14.29	1954	16.04	2029	17.80	2099	19.59	2174	21.44
9656	2800	1596	8.91	1638	9.71	1681	10.53	1724	11.37	1765	12.19	1844	13.85	1920	15.54	1998	17.35	2073	19.20	2143	21.10	2210	22.98
10560	3000	1660	9.96	1702	10.80	1742	11.66	1782	12.53	1823	13.43	1898	15.19	1973	16.97	2043	18.75	2116	20.70	2187	22.65	2255	24.68
11264	3200	1727	11.10	1767	12.00	1806	12.89	1844	13.80	1881	14.72	1957	16.53	2027	18.50	2098	20.41	2162	22.26	2231	24.34	2300	26.41
11968	3400	1796	12.35	1834	13.28	1872	14.24	1909	15.19	1944	16.15	2015	18.11	2085	20.14	2152	22.13	2218	24.16	2280	26.13	2344	28.27
12672	3600	1866	13.72	1904	14.70	1938	15.67	1974	16.69	2009	17.69	2077	19.73	2144	21.82	2211	23.97	2273	26.08	2335	28.22		
13376	3800	1935	15.14	1974	16.23	2008	17.26	2041	18.28	2075	19.35	2142	21.48	2205	23.65	2269	25.86	2331	28.13				
14080	4000	2006	16.68	2043	17.82	2078	18.96	2111	20.04	2142	21.11	2207	23.36	2269	25.61	2330	27.89						
14784	4200	2076	18.30	2112	19.53	2147	20.72	2181	21.92	2211	23.05	2274	25.35	2334	27.71								

CHICAGO AIRFOIL SQA PLUG FAN

WHEEL	29-1/8 in. diameter		7.82 ft. circumference		OUTLET		4.27 sq. ft. inside area		INLET		33-13/16 in. outside dia.		6.23 sq. ft. inside area		SIZE								
MAXIMUM RPM 2087 - CONTINUOUSLY WELDED @ 70°F														DERATE FOR OVERHANG AND TEMPERATURE				27					
CFM	OV FPM	1-1/4" SP		1-1/2" SP		3-1/4" SP		1" SP		1-1/4" SP		1-1/2" SP		1-3/4" SP		2" SP		2-1/2" SP		3" SP		3-1/2" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
2135	500	309	.10																				
2562	600	335	.13	415	.24																		
2989	700	362	.16	436	.29																		
3416	800	391	.21	460	.35	522	.50																
3843	900	424	.26	486	.41	543	.57	597	.74														
4270	1000	455	.31	515	.48	569	.66	618	.84	667	1.04	712	1.24										
4697	1100	488	.38	545	.56	596	.75	643	.95	687	1.15	732	1.37	772	1.60								
5124	1200	520	.45	576	.66	623	.86	668	1.07	711	1.29	752	1.51	793	1.74	831	1.99						
5551	1300	554	.53	607	.76	653	.98	696	1.20	737	1.44	775	1.67	813	1.91	850	2.16	921	2.70				
5978	1400	588	.62	639	.87	683	1.11	724	1.35	763	1.59	800	1.84	836	2.10	871	2.35	940	2.91				
6405	1500	622	.72	671	1.00	714	1.25	753	1.51	790	1.76	827	2.03	861	2.30	895	2.57	960	3.14	1023	3.74		
6832	1600	658	.85	704	1.13	746	1.41	784	1.68	819	1.96	854	2.23	888	2.52	920	2.80	982	3.37	1043	4.00	1101	4.65
7259	1700	693	.98	737	1.28	778	1.58	815	1.87	849	2.16	883	2.45	914	2.74	946	3.06	1006	3.66	1064	4.28	1122	4.95
7686	1800	729	1.13	769	1.44	810	1.77	846	2.08	879	2.37	911	2.68	942	2.99	972	3.31	1031	3.95	1087	4.60	1141	5.28
8113	1900	766	1.29	803	1.61	843	1.96	878	2.29	911	2.61	942	2.93	972	3.26	1000	3.58	1058	4.26	1112	4.94	1163	5.62
8540	2000	803	1.48	837	1.80	875	2.17	910	2.53	943	2.87	972	3.20	1001	3.54	1029	3.88	1084	4.58	1137	5.30	1188	6.02
8994	2200	878	1.90	907	2.24	940	2.63	975	3.04	1006	3.43	1036	3.81	1062	4.16	1089	4.54	1141	5.29	1190	6.06	1239	6.85
10248	2400	951	2.40	979	2.76	1009	3.17	1040	3.62	1071	4.06	1099	4.47	1126	4.88	1151	5.28	1200	6.09	1246	6.91	1292	7.75
11102	2600	1032	3.03	1052	3.37	1077	3.79	1107	4.27	1136	4.74	1163	5.20	1189	5.66	1215	6.11	1260	6.97	1306	7.86	1348	8.75
11956	2800	1106	3.75	1126	4.08	1149	4.52	1174	5.00	1201	5.50	1228	6.02	1253	6.52	1278	7.02	1324	7.98	1366	8.90	1408	9.86
CFM	OV FPM	4" SP		4-1/2" SP		5" SP		5-1/2" SP		6" SP		7" SP		8" SP		9" SP		10" SP		11" SP		12" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
6405	1500	1138	5.01																				
6832	1600	1155	5.32	1207	6.01																		
7259	1700	1175	5.65	1226	6.36	1275	7.08																
7686	1800	1195	5.99	1246	6.73	1296	7.48	1341	8.25	1386	9.02												
8113	1900	1215	6.36	1266	7.12	1314	7.90	1360	8.67	1404	9.48	1488	11.18										
8540	2000	1236	6.74	1286	7.53	1333	8.32	1379	9.15	1423	9.97	1510	11.68	1586	13.46								
8994	2200	1285	7.64	1330	8.43	1375	9.25	1419	10.12	1463	10.99	1545	12.80	1625	14.65	1695	16.57						
10248	2400	1337	8.62	1380	9.47	1422	10.34	1462	11.19	1503	12.11	1585	13.99	1661	15.96	1734	17.96	1803	19.99	1871	22.14		
11102	2600	1390	9.66	1433	10.60	1473	11.52	1511	12.45	1551	13.39	1625	15.31	1701	17.35	1773	19.47	1841	21.60	1905	23.79	1973	26.02
11956	2800	1448	10.81	1487	11.79	1525	12.79	1564	13.80	1601	14.79	1673	16.81	1742	18.86	1813	21.06	1881	23.31	1945	25.61	2006	27.89
12810	3000	1506	12.09	1544	13.11	1581	14.15	1617	15.21	1654	16.30	1722	18.43	1790	20.60	1854	22.76	1920	25.12	1984	27.49	2046	29.95
13664	3200	1567	13.47	1604	14.56	1639	15.65	1673	16.76	1707	17.87	1776	20.18	1839	22.45	1904	24.78	1962	27.02	2025	29.54	2087	32.06
14518	3400	1630	15.00	1664	16.12	1698	17.28	1732	18.43	1764	19.61	1829	21.98	1892	24.45	1953	26.86	2012	29.32	2069	31.72		
15372	3600	1694	16.65	1727	17.84	1759	19.03	1791	20.26	1823	21.48	1885	23.96	1946	26.48	2006	29.10	2063	31.65				
16226	3800	1756	18.38	1791	19.70	1822	20.95	1852	22.19	1883	23.49	1943	26.08	2001	28.70	2059	31.39						
17080	4000	1820	20.25	1853	21.63	1886	23.02	1915	24.33	1944	25.63	2003	28.36	2059	31.09								
17934	4200	1884	22.21	1917	23.71	1948	25.15	1979	26.61	2007	27.98	2064	30.78										

The BHP shown does not include belt drive loss.

The performance shown is for fan with outlet duct.

WHEEL	32-3/8 in. diameter	8.48 ft. circumference		OUTLET		5.27 sq. ft. inside area		INLET		37 in. outside dia.	7.46 sq. ft. inside area		SIZE										
MAXIMUM RPM 1807 — CONTINUOUSLY WELDED @ 70°F								DERATE FOR OVERHANG AND TEMPERATURE						30									
CFM	OV FPM	1/4" SP		1/2" SP		3/4" SP		1" SP		1-1/4" SP		1-1/2" SP		1-3/4" SP		2" SP		2-1/2" SP		3" SP		3-1/2" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
2635	500	276	.12																				
3162	600	299	.16	366	.29																		
3689	700	323	.20	388	.35																		
4216	800	346	.24	412	.41	463	.59																
4743	900	373	.30	436	.49	486	.68	529	.88														
5270	1000	402	.37	459	.57	509	.79	552	1.00	590	1.22												
5797	1100	432	.45	482	.66	534	.90	575	1.13	613	1.37	647	1.62										
6324	1200	463	.54	508	.77	557	1.03	599	1.28	636	1.54	670	1.80	702	2.06	733	2.33						
6851	1300	494	.65	536	.90	578	1.15	623	1.44	660	1.71	693	1.99	724	2.28	754	2.56						
7378	1400	526	.76	565	1.03	603	1.31	646	1.61	684	1.91	717	2.20	748	2.50	777	2.81	831	3.42				
7906	1500	558	.90	595	1.19	630	1.48	668	1.78	707	2.11	741	2.43	771	2.74	800	3.07	853	3.72	903	4.39		
8432	1600	591	1.05	625	1.36	658	1.67	692	1.98	729	2.32	765	2.67	795	3.01	824	3.34	877	4.04	925	4.74	972	5.45
8959	1700	623	1.22	656	1.55	687	1.87	719	2.20	752	2.54	788	2.92	820	3.29	848	3.64	900	4.37	948	5.11	993	5.85
9486	1800	656	1.40	688	1.75	717	2.10	747	2.44	777	2.80	809	3.16	842	3.57	872	3.96	923	4.71	971	5.50	1016	6.28
10013	1900	688	1.60	719	1.98	747	2.34	775	2.70	803	3.07	833	3.45	864	3.86	895	4.28	947	5.09	995	5.90	1039	6.73
10540	2000	721	1.83	750	2.22	778	2.61	805	2.99	831	3.38	858	3.77	887	4.17	918	4.62	972	5.49	1019	6.32	1062	7.19
11594	2200	787	2.34	815	2.78	841	3.21	865	3.63	889	4.05	913	4.48	937	4.90	963	5.34	1018	6.31	1067	7.26	1110	8.18
12648	2400	853	2.97	879	3.43	903	3.89	927	4.37	949	4.83	971	5.28	993	5.75	1015	6.21	1062	7.17	1113	8.24	1158	9.28
13702	2600	922	3.69	945	4.19	967	4.69	989	5.20	1010	5.71	1030	6.20	1051	6.70	1072	7.20	1113	8.21	1157	9.26	1204	10.43
14756	2800	991	4.52	1010	5.06	1033	5.61	1052	6.14	1072	6.70	1092	7.24	1110	7.77	1130	8.31	1168	9.39	1206	10.48	1247	11.62
CFM	OV FPM	4" SP		4-1/2" SP		5" SP		5-1/2" SP		6" SP		7" SP		8" SP		9" SP		10" SP		11" SP		12" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
7905	1500	1000	5.83																				
8432	1600	1016	6.21	1061	6.99																		
8959	1700	1037	6.62	1079	7.42	1120	8.26																
9486	1800	1058	7.07	1094	7.90	1141	8.73	1176	9.61														
10013	1900	1080	7.55	1120	8.39	1159	9.25	1198	10.13	1235	11.07												
10540	2000	1103	8.06	1142	8.92	1180	9.81	1217	10.71	1251	11.65	1323	13.57										
11594	2200	1150	9.11	1188	10.08	1225	11.03	1260	11.98	1294	12.96	1362	14.95	1426	17.11	1488	19.25						
12648	2400	1198	10.28	1235	11.29	1272	12.34	1306	13.38	1340	14.42	1403	16.53	1465	18.62	1527	20.95	1587	23.30				
13702	2600	1246	11.56	1283	12.65	1319	13.74	1353	14.85	1386	15.99	1449	18.25	1508	20.52	1565	22.84	1620	25.24	1675	27.77	1728	30.29
14756	2800	1292	12.89	1332	14.10	1368	15.30	1401	16.46	1433	17.64	1496	20.07	1554	22.51	1609	24.93	1662	27.43	1714	29.98	1767	32.58
15810	3000	1335	14.25	1377	15.59	1414	16.90	1450	18.21	1481	19.46	1542	21.98	1600	24.60	1655	27.21	1707	29.79	1757	32.45	1807	35.14
16864	3200	1384	15.86	1420	17.16	1459	18.56	1495	19.99	1530	21.39	1590	24.09	1647	26.77	1701	29.57	1753	32.35				
17918	3400	1437	17.63	1470	18.98	1504	20.36	1539	21.78	1575	23.38	1639	26.33	1695	29.17	1748	32.03	1800	34.99				
18972	3600	1493	19.59	1523	20.97	1554	22.41	1585	23.85	1618	25.35	1685	28.58	1744	31.72	1797	34.72						
20026	3800	1550	21.67	1579	23.17	1606	24.63	1636	26.13	1666	27.65	1729	30.89	1790	34.28								
21080	4000	1609	23.98	1636	25.49	1663	27.06	1689	28.60	1716	30.18	1774	33.42										
22134	4200	1669	26.42	1695	28.06	1719	29.64	1745	31.29	1770	32.90												

Performances shown are for 100% width housed fans...for applications using OPEN WHEEL see page 2.
Select required fan class based on speed, temperature, and panel wall thickness.

CHICAGO AIRFOIL SQA PLUG FAN

SIZE 33		WHEEL		35-9/16 in. diameter		9.31 ft. circumference		OUTLET		6.38 sq. ft. inside area		INLET		40-3/8 in. outside dia.		8.89 sq. ft. inside area							
		MAXIMUM RPM 1552 -- CONTINUOUSLY WELDED @ 70°F																DERATE FOR OVERHANG AND TEMPERATURE					
CFM	OV FPM	1/4" SP		1/2" SP		3/4" SP		1" SP		1-1/4" SP		1-1/2" SP		1-3/4" SP		2" SP		2-1/2" SP		3" SP		3-1/2" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
3190	500	251	.15																				
3828	600	272	.19	333	.35																		
4466	700	294	.24	353	.42																		
5104	800	315	.30	375	.50	421	.71																
5742	900	339	.37	396	.59	442	.83	481	1.07														
6380	1000	365	.45	417	.69	463	.95	502	1.21	536	1.48												
7018	1100	393	.55	438	.80	485	1.09	523	1.37	557	1.66	588	1.96										
7656	1200	421	.66	462	.94	506	1.24	545	1.55	578	1.86	609	2.18	638	2.50	666	2.82						
8294	1300	449	.78	487	1.09	525	1.40	566	1.74	600	2.07	630	2.41	658	2.76	685	3.10						
8932	1400	478	.92	514	1.25	548	1.58	587	1.95	622	2.31	652	2.66	680	3.03	706	3.40	755	4.14				
9570	1500	507	1.09	541	1.44	573	1.79	607	2.15	643	2.55	674	2.94	701	3.32	727	3.72	775	4.50	821	5.31		
10208	1600	537	1.27	568	1.65	598	2.02	629	2.39	663	2.80	695	3.23	723	3.64	749	4.05	797	4.89	841	5.73	884	6.60
10846	1700	566	1.47	596	1.87	625	2.27	654	2.66	684	3.07	716	3.53	745	3.98	771	4.41	818	5.29	862	6.18	903	7.08
11484	1800	596	1.70	625	2.12	652	2.54	679	2.96	706	3.39	735	3.83	765	4.32	793	4.79	839	5.70	883	6.65	924	7.60
12122	1900	625	1.94	654	2.39	679	2.84	705	3.27	730	3.72	757	4.18	785	4.67	814	5.18	861	6.16	905	7.14	945	8.14
12760	2000	655	2.22	682	2.69	707	3.16	732	3.62	755	4.09	780	4.56	806	5.05	835	5.59	884	6.64	926	7.65	965	8.70
14036	2200	715	2.84	741	3.37	765	3.89	786	4.40	808	4.90	830	5.42	852	5.93	875	6.46	925	7.63	970	8.78	1009	9.89
15312	2400	775	3.59	799	4.15	821	4.71	843	5.29	863	5.84	883	6.39	903	6.96	923	7.52	965	8.68	1012	9.97	1053	11.23
16588	2600	838	4.47	859	5.07	879	5.68	899	6.30	918	6.91	936	7.50	955	8.11	975	8.72	1012	9.93	1052	11.21	1095	12.62
17864	2800	901	5.47	918	6.12	939	6.79	956	7.43	975	8.11	993	8.76	1009	9.40	1027	10.06	1062	11.36	1096	12.69	1134	14.06
CFM	OV FPM	4" SP		4-1/2" SP		5" SP		5-1/2" SP		6" SP		7" SP		8" SP		9" SP		10" SP		11" SP		12" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
9570	1500	909	7.05																				
10208	1600	924	7.51	965	8.46																		
10846	1700	943	8.01	981	8.98	1018	10.00																
11484	1800	962	8.56	1000	9.56	1037	10.56	1074	11.63	1109	12.71												
12122	1900	982	9.13	1018	10.15	1054	11.19	1089	12.26	1123	13.40	1193	15.70	1259	18.15								
12760	2000	1003	9.75	1038	10.79	1073	11.87	1106	12.96	1137	14.10	1203	16.42	1271	18.93	1334	21.52	1398	24.29				
14036	2200	1045	11.03	1080	12.19	1114	13.35	1145	14.50	1176	15.68	1238	18.09	1297	20.70	1358	23.29	1417	26.10	1473	28.96	1532	32.01
15312	2400	1089	12.45	1123	13.66	1156	14.93	1187	16.20	1218	17.45	1275	20.00	1332	22.60	1388	25.35	1443	28.19	1497	31.13	1551	34.19
16588	2600	1133	13.99	1166	15.31	1199	16.63	1230	17.97	1260	19.35	1317	22.08	1371	24.83	1423	27.64	1473	30.54	1523	33.60		
17864	2800	1175	15.60	1211	17.06	1244	18.51	1274	19.92	1303	21.35	1359	24.29	1413	27.23	1463	30.17	1511	33.19				
19140	3000	1214	17.24	1252	18.87	1285	20.45	1318	22.04	1346	23.55	1402	26.60	1455	29.76	1506	32.92	1552	36.05				
20416	3200	1258	19.19	1291	20.76	1326	22.45	1359	24.19	1391	25.89	1445	29.15	1497	32.40	1546	35.78						
21692	3400	1306	21.33	1336	22.97	1367	24.63	1399	26.36	1432	28.29	1490	31.85	1541	35.30								
22968	3600	1357	23.70	1385	25.38	1413	27.12	1441	28.86	1471	30.68	1532	34.59										
24244	3800	1409	26.22	1435	28.03	1460	29.80	1487	31.62	1515	33.46												
25520	4000	1463	29.02	1487	30.84	1512	32.75	1535	34.61														
26796	4200	1517	31.97	1541	33.95																		

The BHP shown does not include belt drive loss.

The performance shown is for fan with outlet duct.

SIZE 36½		WHEEL		39-3/8 in. diameter		10.30 ft. circumference		OUTLET		7.80 sq. ft. inside area		INLET		40-5/8 in. outside dia.		8.84 sq. ft. inside area													
MAXIMUM RPM 1344 – CONTINUOUSLY WELDED @ 70°F																		DERATE FOR OVERHANG AND TEMPERATURE											
CFM	OV FPM	1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		7/8" SP		1" SP		1-1/4" SP		1-1/2" SP		1-3/4" SP		2" SP							
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP						
3900	500	217	.18																										
4680	600	233	.23	265	.33																								
5460	700	251	.29	280	.40	306	.51																						
6240	800	269	.36	297	.49	321	.61	345	.73																				
7020	900	290	.45	315	.59	339	.73	360	.86	381	1.00	402	1.16																
7800	1000	312	.55	334	.70	356	.86	378	1.01	397	1.15	415	1.30	435	1.47														
8580	1100	335	.67	355	.83	375	.99	395	1.16	415	1.34	433	1.50	449	1.65	484	2.03												
9360	1200	357	.79	377	.97	395	1.15	414	1.33	432	1.52	450	1.71	467	1.89	497	2.24	529	2.65										
10140	1300	380	.94	400	1.14	416	1.33	433	1.52	450	1.72	467	1.92	484	2.13	514	2.52	542	2.90	572	3.36								
10920	1400	403	1.11	422	1.32	439	1.53	454	1.74	469	1.94	486	2.16	501	2.38	532	2.82	559	3.22	585	3.64	613	4.13						
11700	1500	426	1.30	444	1.53	461	1.76	476	1.98	490	2.19	505	2.41	520	2.65	549	3.12	577	3.59	602	4.01	626	4.46						
12480	1600	450	1.52	467	1.76	484	2.00	498	2.24	512	2.47	525	2.71	539	2.94	567	3.44	594	3.96	620	4.44	643	4.89						
13260	1700	474	1.76	490	2.01	506	2.26	521	2.53	534	2.78	547	3.02	560	3.27	585	3.79	611	4.32	637	4.86	661	5.37						
14040	1800	498	2.03	514	2.29	529	2.56	543	2.83	556	3.10	568	3.36	581	3.63	604	4.15	630	4.72	654	5.28	678	5.85						
14820	1900	522	2.33	537	2.59	552	2.88	565	3.16	579	3.46	591	3.74	602	4.01	625	4.57	649	5.15	672	5.74	696	6.33						
15600	2000	546	2.66	561	2.94	575	3.23	588	3.53	601	3.83	613	4.14	625	4.44	646	5.02	668	5.60	691	6.22	713	6.84						
17160	2200	596	3.41	609	3.72	621	4.02	634	4.35	646	4.68	658	5.01	670	5.36	690	6.01	710	6.65	730	7.29	750	7.96						
18720	2400	645	4.30	657	4.63	669	4.96	681	5.31	692	5.66	703	6.03	714	6.39	735	7.13	754	7.83	772	8.53	790	9.23						
20280	2600	696	5.35	707	5.71	718	6.06	729	6.43	739	6.80	749	7.19	760	7.58	780	8.36	799	9.17	816	9.93	833	10.68						
21840	2800	745	6.56	756	6.94	766	7.33	777	7.72	786	8.11	796	8.52	806	8.93	825	9.77	844	10.63	861	11.48	877	12.31						
CFM	OV FPM	2-1/2" SP		3" SP		3-1/2" SP		4" SP		4-1/2" SP		5" SP		5-1/2" SP		6" SP		7" SP		8" SP		9" SP							
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP						
10920	1400	669	5.20																										
11700	1500	676	5.51	730	6.72																								
12480	1600	690	5.91	737	7.07																								
13260	1700	704	6.35	749	7.53	793	8.80	842	10.22																				
14040	1800	720	6.90	762	8.00	804	9.29	846	10.65																				
14820	1900	738	7.51	777	8.58	817	9.84	857	11.18	897	12.67	942	14.29																
15600	2000	756	8.10	794	9.27	831	10.44	869	11.83	906	13.23	944	14.82	990	16.54														
17160	2200	790	9.33	829	10.72	865	12.03	898	13.27	932	14.67	967	16.25	1001	17.80	1036	19.54												
18720	2400	827	10.70	864	12.19	900	13.71	933	15.17	964	16.51	994	17.92	1026	19.54	1058	21.26	1119	24.81	1191	28.92								
20280	2600	866	12.20	901	13.81	934	15.43	968	17.07	999	18.68	1028	20.17	1056	21.64	1085	23.21	1140	26.88	1201	30.69	1266	34.98						
21840	2800	908	13.95	939	15.55	971	17.33	1003	19.06	1034	20.83	1064	22.59	1092	24.17	1118	25.83	1170	29.14	1225	33.10	1279	37.13						
23400	3000	952	15.84	981	17.59	1009	19.33	1040	21.25	1069	23.10	1098	25.00	1127	26.90	1154	28.73	1203	32.14	1252	35.71	1304	39.92						
24960	3200	996	17.97	1023	19.81	1051	21.68	1077	23.54	1106	25.58	1134	27.57	1161	29.57	1188	31.60	1239	35.53	1285	39.14	1331	42.93						
26520	3400	1041	20.25	1068	22.24	1093	24.21	1119	26.20	1144	28.16	1171	30.35	1197	32.46	1223	34.57	1274	38.88	1321	43.02								
28080	3600	1086	22.70	1113	24.87	1137	26.94	1161	29.07	1186	31.17	1209	33.23	1235	35.55	1259	37.79	1308	42.29										
29640	3800	1131	25.33	1158	27.74	1182	29.98	1206	32.15	1228	34.40	1251	36.60	1273	38.78	1297	41.21	1344	45.93										
31200	4000	1176	28.25	1202	30.68	1227	33.15	1250	35.53	1271	37.83	1293	40.19	1315	42.50	1336	44.80												
32760	4200	1222	31.40	1247	33.94	1273	36.60	1294	39.07	1316	41.56	1336	43.98																



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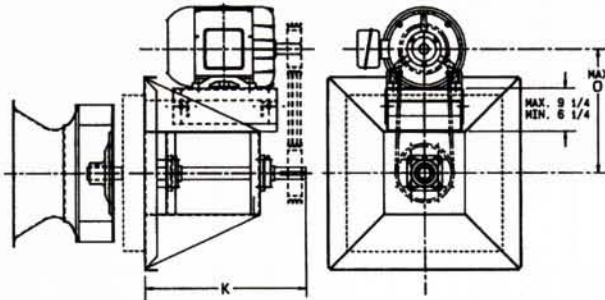
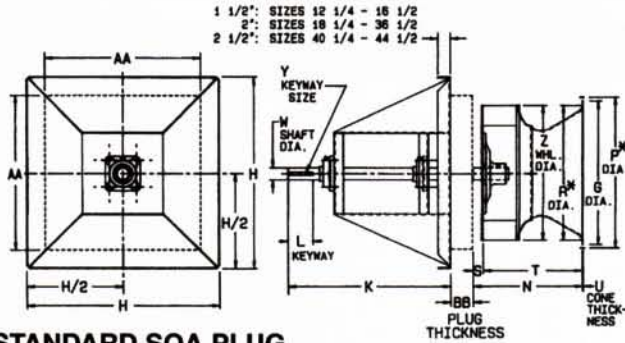
WHEEL		43.7/16 in. diameter		11.37 ft. circumference		OUTLET		9.48 sq. ft. inside area		INLET		44-1/8 in. outside dia.		10.44 sq. ft. inside area		SIZE							
MAXIMUM RPM 1220 — CONTINUOUSLY WELDED @ 70°F										DERATE FOR OVERHANG AND TEMPERATURE								40 1/4					
CFM	OV FPM	1/4" SP		1/2" SP		5/8" SP		3/4" SP		7/8" SP		1" SP		1-1/4" SP		1-1/2" SP				1-3/4" SP		2" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP			RPM	BHP	RPM	BHP
4740	500	197	.22																				
5688	600	212	.29																				
6636	700	227	.36	277	.63	303	.79																
7584	800	244	.45	292	.75	312	.90	334	1.07	357	1.28												
8532	900	263	.55	307	.89	327	1.05	345	1.22	364	1.41	384	1.62										
9480	1000	283	.67	323	1.04	342	1.23	360	1.41	377	1.59	394	1.79	429	2.25								
10428	1100	304	.82	340	1.21	358	1.42	376	1.63	392	1.83	408	2.02	438	2.46	470	2.97						
11376	1200	325	.98	358	1.40	375	1.62	391	1.85	408	2.08	423	2.30	451	2.73	479	3.22	508	3.77				
12324	1300	345	1.16	378	1.62	393	1.85	408	2.10	423	2.35	439	2.60	466	3.07	492	3.54	518	4.06	544	4.66		
13272	1400	366	1.37	398	1.87	412	2.11	426	2.37	440	2.63	454	2.90	482	3.43	507	3.93	531	4.44	555	5.01		
14220	1500	387	1.60	418	2.15	432	2.41	445	2.67	458	2.94	471	3.23	498	3.80	523	4.36	546	4.90	568	5.44		
15168	1600	409	1.86	439	2.45	452	2.73	464	3.01	476	3.29	489	3.58	514	4.19	538	4.80	562	5.40	583	5.96		
16116	1700	430	2.15	460	2.78	473	3.08	484	3.38	496	3.67	507	3.98	531	4.61	554	5.26	577	5.91	599	6.53		
17064	1800	452	2.48	480	3.14	493	3.47	505	3.78	516	4.10	527	4.41	548	5.06	571	5.74	593	6.43	614	7.12		
18012	1900	474	2.84	501	3.53	514	3.88	525	4.22	536	4.55	547	4.88	567	5.55	588	6.25	609	6.98	630	7.71		
18960	2000	496	3.24	522	3.96	534	4.33	546	4.69	557	5.05	567	5.40	586	6.09	606	6.81	626	7.56	646	8.33		
20856	2200	540	4.15	564	4.93	576	5.33	587	5.74	598	6.14	608	6.54	627	7.31	644	8.07	662	8.86	680	9.67		
22752	2400	585	5.24	607	6.06	618	6.50	629	6.94	639	7.39	649	7.83	667	8.69	684	9.53	701	10.36	717	11.21		
24648	2600	631	6.51	651	7.39	661	7.85	671	8.33	681	8.81	691	9.29	709	10.25	725	11.17	741	12.07	756	12.98		
26544	2800	676	7.99	695	8.92	704	9.41	714	9.91	723	10.42	732	10.94	750	11.98	766	13.00	782	13.99	796	14.96		
CFM	OV FPM	2-1/2" SP		3" SP		3-1/2" SP		4" SP		4-1/2" SP		5" SP		6" SP		7" SP		8" SP		9" SP			
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP		
13272	1400	605	6.32																				
14220	1500	613	6.70	662	8.18																		
15168	1600	625	7.17	667	8.60	715	10.22																
16116	1700	639	7.74	678	9.11	719	10.69	764	12.43														
17064	1800	654	8.41	691	9.73	728	11.25	767	12.96														
18012	1900	669	9.12	705	10.47	740	11.93	776	13.58	813	15.40	854	17.37										
18960	2000	685	9.85	721	11.29	754	12.73	787	14.31	821	16.09	857	18.02										
20856	2200	716	11.36	752	13.03	784	14.63	815	16.18	845	17.83	876	19.65	939	23.76								
22752	2400	750	12.99	783	14.84	815	16.67	846	18.43	875	20.12	903	21.85	958	25.72	1016	30.19						
24648	2600	785	14.82	816	16.78	847	18.78	877	20.77	906	22.70	933	24.55	985	28.29	1036	32.52	1089	37.29	1147	42.51		
26544	2800	824	16.92	852	18.93	880	21.04	909	23.20	937	25.35	964	27.45	1015	31.46	1062	35.51	1110	40.04	1158	45.09		
28440	3000	864	19.25	889	21.36	915	23.54	942	25.80	969	28.11	995	30.42	1046	34.91	1092	39.17	1137	43.52	1181	48.31		
30336	3200	904	21.84	929	24.06	953	26.32	977	28.65	1002	31.06	1027	33.52	1077	38.43	1123	43.17	1166	47.69	1208	52.32		
32232	3400	945	24.67	969	27.03	992	29.40	1015	31.80	1038	34.29	1061	36.84	1108	42.07	1154	47.26	1197	52.25				
34128	3600	986	27.73	1010	30.27	1032	32.77	1053	35.28	1075	37.83	1097	40.46	1141	45.91	1185	51.46						
36024	3800	1028	31.05	1051	33.78	1073	36.44	1093	39.07	1114	41.72	1134	44.42	1176	50.02	1218	55.83						
37920	4000	1069	34.62	1092	37.55	1114	40.39	1134	43.17	1154	45.95	1173	48.74	1212	54.46								
39816	4200	1110	38.48	1133	41.59	1155	44.62	1175	47.58	1194	50.50	1213	53.42										

The BHP shown does not include belt drive loss.

The performance shown is for fan with outlet duct.

WHEEL		48 in. diameter		12.57 ft. circumference		OUTLET		11.58 sq. ft. inside area		INLET		48-7/8 in. outside dia.		12.83 sq. ft. inside area		SIZE					
MAXIMUM RPM 1098 -- CONTINUOUSLY WELDED @ 70°F																					
DERATE FOR OVERHANG AND TEMPERATURE																					
CFM	OV FPM	1/4" SP		1/2" SP		5/8" SP		3/4" SP		7/8" SP		1" SP		1-1/4" SP		1-1/2" SP		1-3/4" SP		2" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
5790	500	178	.27																		
6948	600	191	.35																		
8106	700	205	.44	251	.76	274	.97														
9264	800	221	.55	264	.91	282	1.09	302	1.31	323	1.56										
10422	900	238	.67	278	1.09	296	1.28	312	1.49	329	1.72	347	1.98								
11580	1000	256	.82	292	1.27	310	1.50	326	1.72	341	1.94	356	2.19	388	2.75						
12738	1100	275	1.00	307	1.48	324	1.73	340	1.99	355	2.23	369	2.47	396	3.00	425	3.63				
13896	1200	293	1.20	324	1.71	339	1.98	354	2.26	369	2.54	383	2.81	408	3.34	433	3.93	460	4.61		
15054	1300	312	1.42	342	1.98	355	2.26	369	2.56	383	2.87	397	3.17	422	3.75	445	4.32	468	4.97	492	5.69
16212	1400	331	1.67	360	2.28	372	2.58	385	2.89	398	3.21	411	3.54	436	4.19	459	4.80	480	5.42	502	6.11
17370	1500	350	1.95	378	2.62	390	2.94	402	3.26	414	3.59	426	3.94	450	4.64	473	5.33	494	5.98	514	6.64
18528	1600	369	2.27	397	2.99	409	3.33	420	3.67	431	4.02	442	4.37	464	5.12	487	5.87	508	6.59	527	7.28
19686	1700	389	2.63	416	3.39	427	3.76	438	4.13	448	4.49	459	4.85	480	5.62	501	6.42	522	7.21	541	7.98
20844	1800	408	3.03	434	3.83	446	4.23	456	4.62	466	5.00	476	5.38	496	6.18	516	7.01	536	7.86	555	8.69
22002	1900	428	3.47	453	4.31	465	4.74	475	5.15	485	5.56	494	5.96	513	6.78	531	7.64	551	8.52	569	9.42
23160	2000	448	3.95	472	4.83	483	5.28	494	5.73	503	6.16	513	6.59	530	7.44	548	8.31	566	9.23	584	10.17
25476	2200	489	5.07	510	6.01	521	6.51	531	7.01	541	7.50	550	7.98	566	8.92	582	9.85	598	10.82	615	11.81
27792	2400	529	6.40	549	7.40	559	7.94	569	8.48	578	9.02	587	9.56	603	10.61	619	11.63	633	12.65	648	13.69
30108	2600	570	7.95	588	9.02	598	9.59	607	10.17	616	10.75	624	11.34	641	12.51	656	13.64	670	14.74	683	15.84
32424	2800	611	9.75	628	10.89	637	11.48	645	12.10	654	12.72	662	13.36	678	14.63	693	15.87	707	17.08	720	18.27
CFM	OV FPM	2-1/2" SP		3" SP		3-1/2" SP		4" SP		4-1/2" SP		5" SP		6" SP		7" SP		8" SP		9" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
16212	1400	548	7.72																		
17370	1500	554	8.19	599	9.99																
18528	1600	565	8.76	604	10.51	647	12.48														
19686	1700	578	9.46	613	11.13	650	13.06	691	15.19												
20844	1800	591	10.27	625	11.88	658	13.74	694	15.83												
22002	1900	605	11.14	638	12.79	669	14.57	701	16.59	736	18.82										
23160	2000	619	12.03	652	13.79	682	15.54	712	17.49	743	19.65	775	22.01								
25476	2200	648	13.87	680	15.92	709	17.86	737	19.76	764	21.78	792	24.01	850	29.03						
27792	2400	678	15.86	708	18.12	737	20.35	765	22.50	791	24.57	816	26.68	866	31.42	919	36.88				
30108	2600	710	18.10	738	20.49	766	22.93	793	25.36	819	27.72	844	29.98	890	34.55	937	39.72	985	45.56	1037	51.94
32424	2800	745	20.65	770	23.12	796	25.70	822	28.33	847	30.96	872	33.52	917	38.42	961	43.37	1003	48.91	1048	55.08
34740	3000	781	23.51	804	26.08	828	28.74	852	31.51	876	34.33	900	37.15	945	42.63	988	47.83	1028	53.15	1068	59.01
37056	3200	817	26.66	840	29.38	861	32.13	884	34.99	906	37.93	929	40.94	973	46.94	1016	52.72	1055	58.24	1092	63.90
39372	3400	855	30.11	876	33.01	897	35.89	917	38.84	938	41.87	959	44.99	1002	51.38	1044	57.72	1083	63.81		
41688	3600	892	33.86	913	36.96	933	40.01	952	43.08	972	46.20	992	49.41	1032	56.07	1072	62.84				
44004	3800	929	37.90	950	41.24	970	44.49	989	47.71	1007	50.95	1025	54.24	1063	61.09						
46320	4000	966	42.27	987	45.84	1007	49.31	1025	52.71	1043	56.10	1060	59.52	1095	66.50						
48636	4200	1004	46.98	1025	50.77	1044	54.48	1062	58.10	1080	61.66	1096	65.22								

SQA PLUG FAN DIMENSIONS



MOTOR FRAME	ADJUSTABLE MOTOR BASE DRIVE CENTERS			
	FOR SIZES 12-1/4 — 16-1/2		FOR SIZES 18-1/4 — 44-1/2	
	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM
56 143-145	15-1/4	16-3/4	16-3/4	18-1/4
182-184	16-1/4	17-3/4	17-3/4	19-1/4
213-215	N/A	N/A	18-1/2	20
254-256	N/A	N/A	19-1/2	21
* 284-286	N/A	N/A	20-1/4	21-3/4
† 324-326	N/A	N/A	21-1/4	22-3/4

* Sizes 27 - 44-1/2 only. † Sizes 40-1/4 and 44-1/2 only.

STANDARD PLUG DIMENSIONS (INCHES) ±1/8

FAN SIZE	W (SHAFT DIA.)			Y (KEYWAY SIZE)			G	H	H/2	K	L	N	O	P*	R*	S	T	U	Z	AA
	CL I	CL II	CL III	CL I	CL II	CL III														
12-1/4	1-7/16	1-11/16	1-15/16	3/8 x 3/16	3/8 x 3/16	1/2 x 1/4	14 3/8	23	11-1/2	20	2-1/2	10-25/32	18-7/8	15	13 5/8	31/32	9 13/16	16 GA	13 3/8	18
13-1/2	1-7/16	1-11/16	1-15/16	3/8 x 3/16	3/8 x 3/16	1/2 x 1/4	15 3/4	23	11-1/2	20	2-1/2	11-7/8	18-7/8	16-1/2	15-1/8	1-1/16	10-13/16	16 GA	14-13/16	18
15	1-7/16	1-11/16	1-15/16	3/8 x 3/16	3/8 x 3/16	1/2 x 1/4	17-3/8	23	11-1/2	20	2-1/2	13-3/16	18-7/8	18-1/8	16-3/4	1-9/32	11-29/32	16 GA	16 7/16	18
16-1/2	1-7/16	1-11/16	1-15/16	3/8 x 3/16	3/8 x 3/16	1/2 x 1/4	19-3/8	23	11-1/2	20	2-1/2	14-15/32	18-7/8	20-1/8	18-1/2	1-15/32	13	16 GA	18-1/16	18
18-1/4	1-11/16	1-15/16	2-3/16	3/8 x 3/16	1/2 x 1/4	1/2 x 1/4	21-1/4	31	15-1/2	27-3/4	3-1/2	16-1/8	22-1/8	22-1/4	20-1/4	1-23/32	14-13/32	16 GA	19-15/16	27-3/8
20	1-11/16	1-15/16	2-3/16	3/8 x 3/16	1/2 x 1/4	1/2 x 1/4	23-1/4	31	15-1/2	27-3/4	3-1/2	17-5/8	22-1/8	24-1/16	22-1/8	1-7/8	15-3/4	16 GA	21-13/16	27-3/8
22-1/4	1-11/16	1-15/16	2-3/16	3/8 x 3/16	1/2 x 1/4	1/2 x 1/4	25-1/2	31	15-1/2	27-3/4	3-1/2	19-5/8	22-1/8	26-1/8	24-9/16	2-5/32	17-15/32	16 GA	24-1/4	27-3/8
24-1/2	1-11/16	1-15/16	2-3/16	3/8 x 3/16	1/2 x 1/4	1/2 x 1/4	28	31	15-1/2	27-3/4	3-1/2	21-9/16	22-1/8	29	27	2-3/16	19-3/8	14 GA	26-11/16	27-3/8
27	1-15/16	2-3/16	2-7/16	1/2 x 1/4	1/2 x 1/4	5/8 x 5/16	31-1/8	48	24	31	4-1/2	23-3/4	22-7/8	32-3/16	29-3/4	2-3/4	21	14 GA	29-3/8	43
30	1-15/16	2-3/16	2-7/16	1/2 x 1/4	1/2 x 1/4	5/8 x 5/16	34-1/2	48	24	31	4-1/2	26-11/32	22-7/8	35-3/8	33	3-3/32	23-1/4	14 GA	32-5/8	43
33	1-15/16	2-3/16	2-7/16	1/2 x 1/4	1/2 x 1/4	5/8 x 5/16	37-7/8	48	24	31	4-1/2	29	22-7/8	38-3/4	36-15/16	3-13/32	25-19/32	14 GA	35-13/16	43
36-1/2	1-15/16	2-3/16	2-7/16	1/2 x 1/4	1/2 x 1/4	5/8 x 5/16	42-1/8	48	24	31	4-1/2	32	22-7/8	43	40	3-23/32	28-9/32	14 GA	39-5/8	43
40-1/4	N/A	N/A	2-7/16	N/A	N/A	5/8 x 5/16	45-1/4	55	27-1/2	34-3/8	4-1/2	35-1/4	23-7/8	46-1/2	44	3-31/32	31-9/32	14 GA	43-7/16	50
44-1/2	N/A	N/A	2-7/16	N/A	N/A	5/8 x 5/16	50-1/8	55	27-1/2	34-3/8	4-1/2	38-15/16	23-7/8	51-1/4	48-3/4	4-13/32	34-17/32	12 GA	48	50

P is recommended bolt circle diameter for inlet cone mounting. "R" is recommended inlet hole size for inlet cone (and for wheel removal). Dimension "BB" for optional plug thicknesses equals 2, 4, or 6 inches.

HOUSING DIMENSIONS (INCHES)

FAN SIZE	A	B	C	D	E	F	G	H	N	W	T
D/44									SISW 100%		
—	10-7/8	7-15/32	6-1/8	8-9/32	7-31/32	9-1/2	9-3/4	10-3/4	7-11/16	1-9/16	1-1/2
—	14-3/16	8-17/32	7-3/32	10-5/32	8-27/32	10-13/16	11	12	8-23/32	3-9/16	1-1/2
12-1/4	14-1/8	10-15/32	8-11/16	12-15/32	11-5/16	13-1/4	13-5/8	15	10-21/32	1-3/32	2-13/16
13-1/2	15-13/16	11-1/2	9-1/2	13-23/32	12-1/16	14-9/16	15-1/8	16-1/2	11-3/4	1-15/32	2-13/16
15	17-3/16	12-3/4	10-9/16	15-7/32	12-7/8	16-5/32	16-5/8	18-1/8	13-1/16	1-9/32	2-13/16
16-1/2	19-1/8	14	11-19/32	16-23/32	13-7/8	17-3/4	18-1/2	20-1/8	14-11/32	1-5/8	2-13/16
18-1/4	20-3/4	15-23/32	13-1/16	18-23/32	15-3/8	19-7/8	20-1/4	22-1/4	15-7/8	1-3/8	2-13/16
20	23-7/16	17-5/32	14-7/32	20-7/16	16-5/16	21-23/32	22-1/16	24-1/16	17-3/8	2-1/4	2-13/16
22-1/4	25-9/16	19	15-13/16	22-21/32	18	24-3/32	24-1/2	26-1/8	19-3/8	1-31/32	3-5/16
24-1/2	28-3/16	20-7/8	17-11/32	24-29/32	19-1/4	26-1/2	27	29	21-5/16	2-7/32	3-5/16
27	31-9/16	22-15/16	19-1/32	27-3/8	20-7/8	29-1/8	29-3/4	32-3/16	23-1/2	2-31/32	3-5/16
30	34-3/8	25-3/8	21-1/16	30-5/16	22-9/16	32-1/4	33	35-3/8	26-3/32	2-19/32	3-7/16
33	38-5/16	27-27/32	23-1/16	33-1/4	24-5/8	35-3/8	36-5/16	38-3/4	28-3/4	3-7/16	3-13/16
36-1/2	42	30-3/4	25-15/32	36-3/4	27-1/2	39-1/8	40	43	31-3/4	3-3/8	4-3/16
40-1/4	46-1/2	33-27/32	28	40-1/2	30-1/16	43-1/8	44	46-1/2	35	3-29/32	5
44-1/2	51-1/16	37-11/32	30-29/32	44-11/16	32-15/16	47-9/16	48-3/4	51-1/4	38-11/16	3-31/32	5-1/2

NOTE: Sizes 40-1/4 AND 44-1/2 are furnished with housing stiffeners in place.

ALL HOLES EQUALLY SPACED ON C
SIZES 12-1/4 THRU 16-1/2: 8 HOLES - .201 INCH DIAMETER
(SIZED FOR 1/4-20 INCH TYPE "T" THREAD CUTTING SCREWS)
SIZES 18-1/4 THRU 40-1/4: 16 HOLES - .344 INCH DIAMETER
(SIZED FOR 3/8-16 INCH TYPE "T" THREAD CUTTING SCREWS)
SIZES 44-1/2: 24 THREADED HOLES - 1/2-13 INCH DIAMETER
(SIZED FOR 1/2-13 INCH CAP SCREWS)

