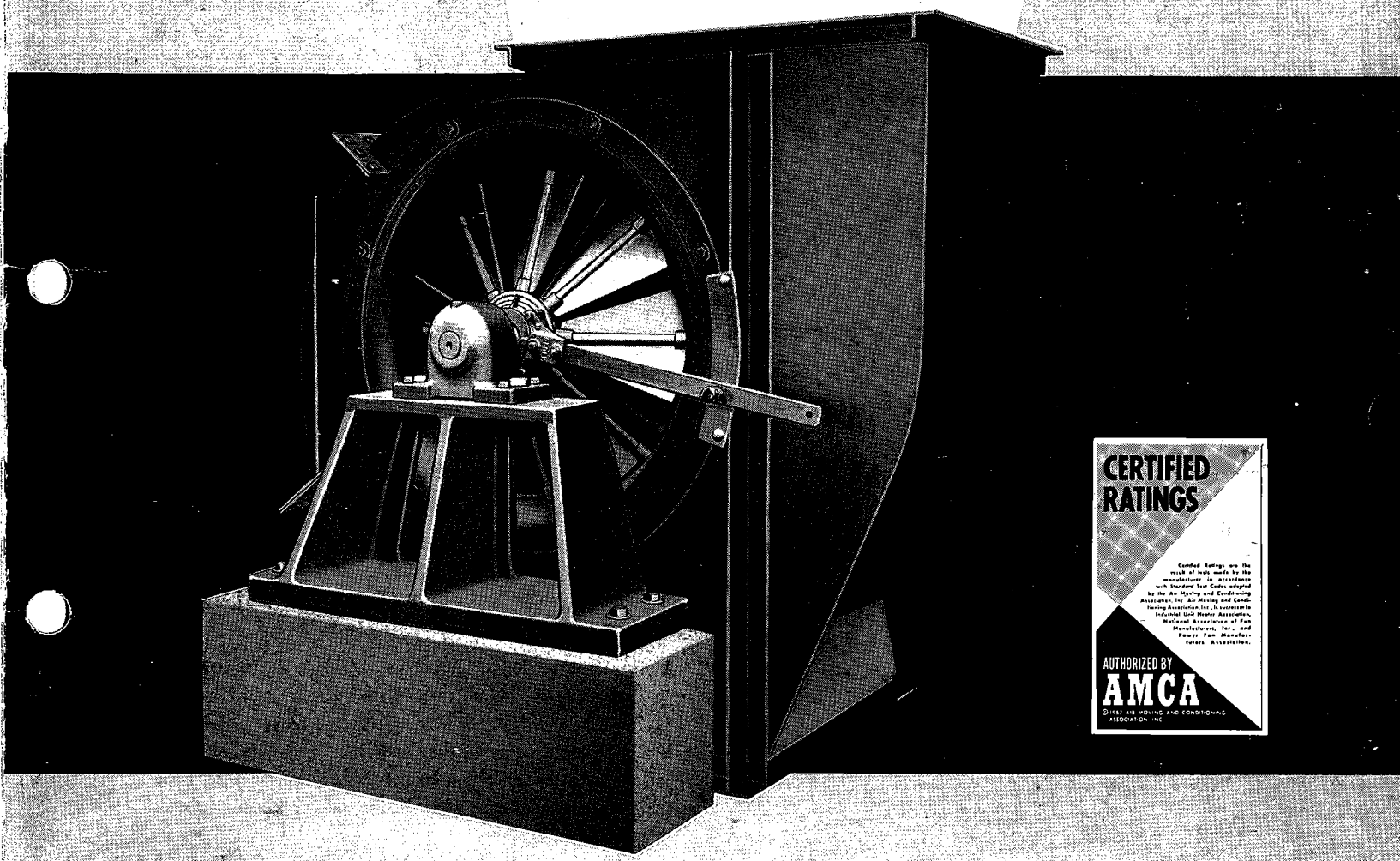
Bulletin 802-A

CLARAGE

Type NH
Forced Draft Fans



CERTIFIED RATINGS

Certified Ratings are the result of tests made by the manufacturer in accordance with Standard Test Codes adopted by the Air Moving and Conditioning Association, Inc. Air Moving and Conditioning Association, Inc., is successor to Industrial Unit Heater Association, National Association of Fan Manufacturers, Inc., and Power Fan Manufacturers Association.

AUTHORIZED BY AMCA

AIR MOVING AND CONDITIONING ASSOCIATION, INC.

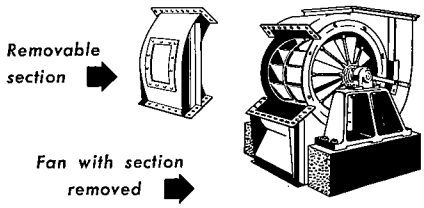
CLARAGE FAN COMPANY **Kalamazoo, Michigan**

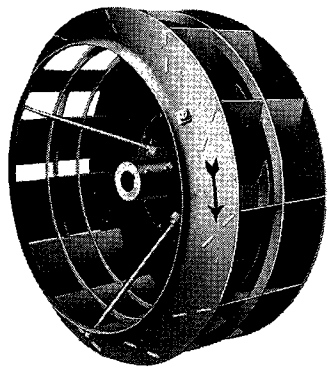
Manufacturers of Air Handling and Conditioning Equipment

SALES ENGINEERING OFFICES IN ALL PRINCIPAL CITIES

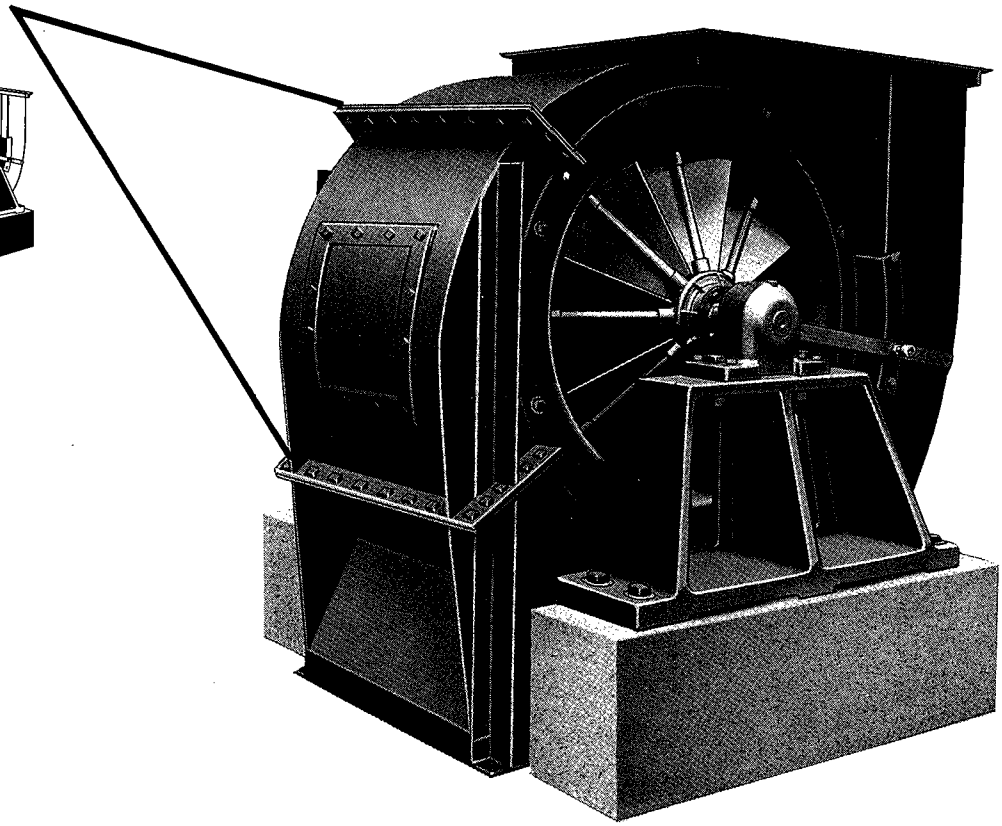
TYPE NH, FORCED DRAFT FANS

Removal of split section of housing (see sketches below) gives ready access to interior of fan and fan wheel.





Typical single width wheel for a Type NH, Forced Draft Fan. The number of reinforcing rings and the addition of brace rods is governed by fan size.



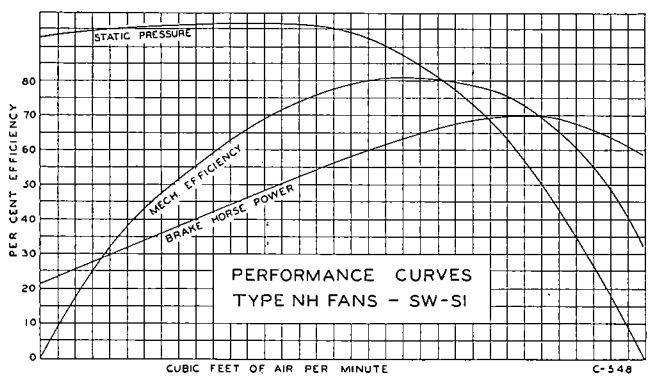
Inlet side view of a typical Type NH, Forced Draft Fan, single width, up blast discharge, equipped with Vortex Control.

Distinguished by highly efficient, stable performance

Clarage Type NH, Forced Draft Fans are units of proved merit for this type service. Users agree that here is thoroughly dependable equipment fully answering within its performance range the requirements of modern power plants.

DESIGN FEATURES

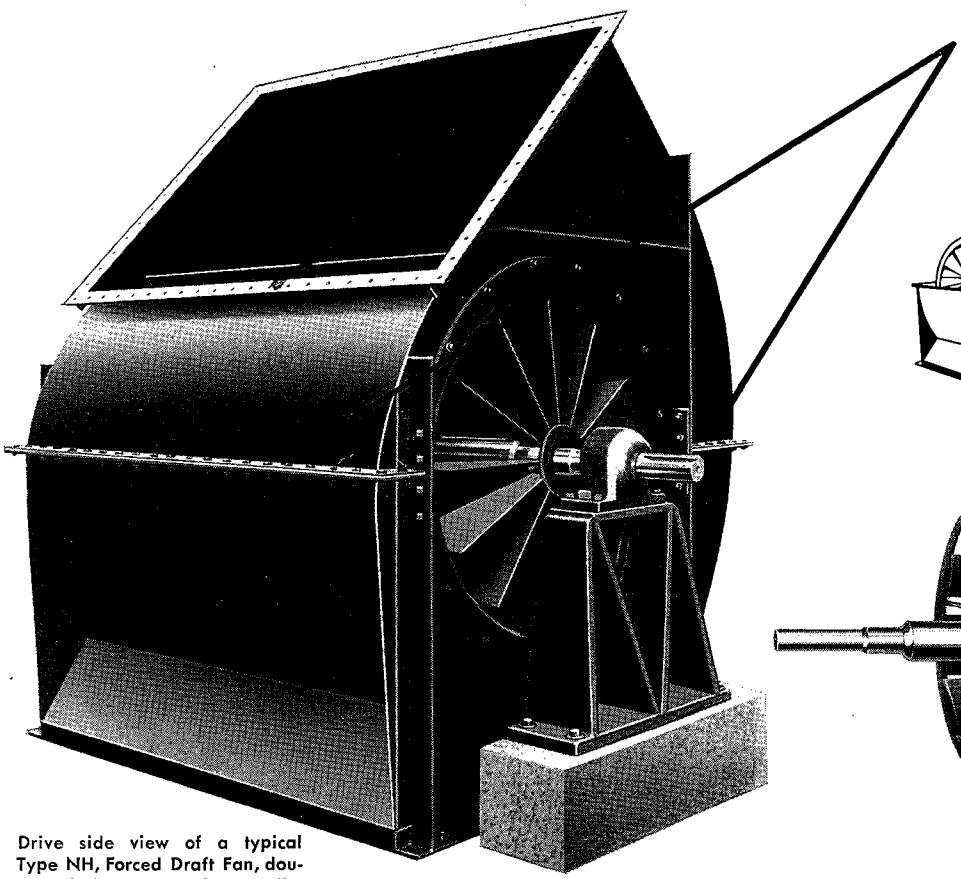
Because forced draft service usually calls for direct motor drive, these fans were designed for medium high speed operation to realize the first cost economy of higher speed motors.



It is important to note that the Type NH, Forced Draft Fan has a maximum tip speed of 13,000 feet per minute, regardless of pressure. Capacity tables show performance within the usual range of application.

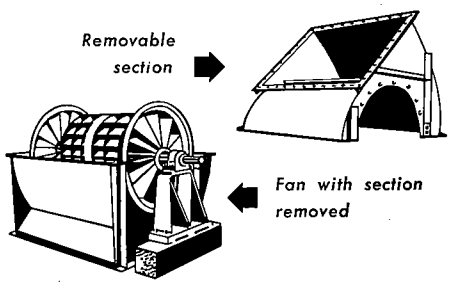
A non-overloading power characteristic is inherent in the wheel design. Thus, Vortex Control is required only for volume regulation; and Fixed Vortex is required only to limit the maximum capacity. Motors for driving Type NH Fans can be safely selected of a smaller size than for fans without the non-overloading power characteristic.

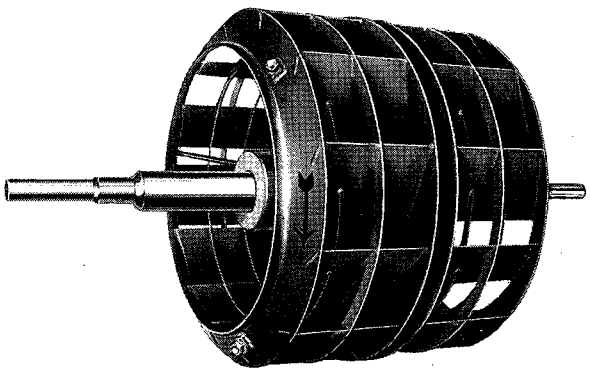
Of even greater importance, Clarage Type NH Fans have a stable, broad efficiency curve rather than a sharp, peak efficiency with its tendency toward unpredictable performance when actually on the job. Modern manufacturing techniques assure that each Type NH Fan built is accurate as to shape and dimensions and will perform as rated. Thus, this advanced fan design provides highly efficient, trouble-free results.



Drive side view of a typical Type NH, Forced Draft Fan, double width, top angular up discharge, equipped in this case with Fixed Vortex at each inlet to limit capacity.

Removal of split half of housing (see sketches below) gives complete access to interior of fan and fan wheels.





The rotating assembly for a double width Type NH, Forced Draft Fan consists of two single wheels mounted on shaft.

CONSTRUCTION FEATURES

Type NH Forced Draft Fans are built either single or double width in 16 sizes with wheel diameters ranging from 15″ to 66″. Arrangement 3 only is available. Independent bearing pedestals are standard.

HOUSINGS are distinguished by heavy gauge sheet steel and base angle construction. Angles and channel iron members, as required by the size of the fan, solidly reinforce the structure.

Electric arc welding of the sheets and reinforcing members insures rigidity; welding of the scroll and side sheets prevents leakage. Welded to the inside of the side sheets around the housing openings are reinforcing bars to which the inlet and drive side cones are attached with bolts.

Housings are of the split type, with a section removable for ready access to the fan interior and rotating assembly. Gaskets between the bolted companion angles assure tight construction at the joints. Access panels, furnished as standard, are also gasketed.

INLETS are designed to induce a smooth, highly efficient air flow to the wheel. The wheel rim overlaps the inlet, creating an effective interlock yet maintaining ample clearance. Inlet cones for fan sizes 30 through 73 are of one-piece construction accurately spun to shape; for larger sizes they are accurately rolled to shape and smoothly welded at the joints.

OUTLETS have heavy flanges which permit tight connection to the air duct. The removable cut-off, which is securely bolted to the housing, continues the scroll shape back toward the wheel, further promoting high, stable efficiency.

VORTEX CONTROL

. . . can be furnished on Type NH, Forced Draft Fans. This device, consisting of a number of adjustable blades arranged in the fan inlet, should be used if it is necessary to change periodically or continually the air volume delivered by the fan. It is a means of achieving any desired capacity regulation, with the fan operating at constant speed. It has the low first cost of damper control and the efficient performance of costly variable speed control. In those cases where it is desired to limit a fan's fixed maximum capacity, a Fixed Vortex can be supplied. See Vortex Control Bulletin 122-A for full details.

DAMPER CONTROL

Any Type NH, Forced Draft Fan can be furnished with volume control louver dampers or louver shut-off dampers built at the fan outlet. Volume control louver dampers have splitter plates between adjacent blades to provide quick response in volume regulation. Louver shut-off dampers are furnished without splitter plates.

INDEPENDENT BEARING PEDESTALS are furnished for each fan to provide rigid support of the rotating assembly. The bottom of the bearing pillow block and the top and bottom of the bearing pedestals are machined. Perfect alignment is thus facilitated. Spacer blocks between bearings and pedestals, or sole plates under the bearing supports, are available if desired. Through bolts anchor the bearing in position on its pedestal.

WHEELS are of the backwardly inclined blade design sturdily constructed for continuous service. Each wheel has 12 die formed blades. A double width fan has two standard single wheels mounted on the shaft, facilitating alignment of each wheel with its inlet. Design performance is thus insured.

In sizes 30 through 73, the blades are riveted to the backplate and welded to the rim. For added strength, a tenon at the rim end of each blade extends through a slot in the rim, and is welded to the rim. Wheel rims are of one-piece spun construction so shaped as to assure smooth air flow and efficient, stable performance. Blade reinforcing rings are provided on all sizes; and brace rods extending from the cast iron hub are furnished on sizes 49 and larger.

In sizes 80½ and larger, one end of the blade extends through a slot in the backplate, and the other end is tenoned to fit into slots in the rim. Welding of each blade to both rim and backplate insures a rigid, lasting construction. Wheel rims are rolled to shape for smooth air flow and efficient performance. Reinforcing rings and brace rods are furnished on all of these larger sizes for added strength and rigidity.

SHAFTS are of SAE 1035 or SAE 1040 open hearth steel, accurately turned and ground to size for a correct fit with wheel hub and bearings. Diameters are amply large to carry the wheel assemblies at top operating speed.

BEARINGS

Anti-friction bearings are standard on all Type NH Forced Draft Fans. These bearings are grease type, self-aligning in all planes, and heavy-duty in design and construction. Felt washers effectively seal in the grease and prevent entrance of dirt.

ACCESSORIES AND SPECIAL FEATURES

In addition to Vortex and Damper Control, described on page 3, the following accessories are available: Inlet screens, quick action hinged type access panels, dual shaft extensions, sub-bases, and inlet boxes for handling preheated air.

FOR HEAVIER DUTY SERVICE . . .

Applications requiring tip speeds from 13,000 to 20,000 feet per minute are ideally handled by Clarage Type W, Mechanical Draft Fans.

General Data

SIZE OF FAN	SIZE OF OUTLET Inside Outlet Flange			EXTREME DIMENSIONS Arr. 3 THD Fans Ball Bearing				WHEEL 2 Wheels on DW		BEARING AND SHAFT EXTENSION DIAMETER		MAX. RPM	OUTLET AREA (Inside) Sq. Ft.		WEIGHT In Pounds		SIZE OF FAN
	Width SW	Width DW	Height SW & DW	Height SW & DW	LENGTH Across Shaft SW & DW	WIDTH Along Shaft SW	WIDTH Along Shaft DW	Dia.	Width	SW	DW		SW	DW	SW	DW	
30	12	21½	15⅞	31⅞	28 7/16	31⅞	41⅜	15	6 5/32	1 3/16	1 3/16	3320	1.27	2.30	330	700	30
33	13⅜	23⅞	17⅜	34⅛	30 5/16	32	42½	16½	6¾	1 3/16	1 3/16	3000	1.56	2.80	430	790	33
36½	14⅞	26⅜	19¼	37½	32 15/16	36	47½	18¼	7½	1 5/16	1 5/16	2720	1.90	3.42	490	875	36½
40	16¼	29	21⅛	40⅝	35½	37⅝	50⅜	20	8 3/16	1 7/16	1 7/16	2480	2.30	4.15	650	1025	40
44½	18	32	23½	44¾	38 15/16	39⅜	53⅜	22¼	9 3/32	1 7/16	1 7/16	2230	2.83	5.09	750	1200	44½
49	19⅞	35½	25¾	48¾	42⅛	44	59⅜	24½	10	1 1/16	1 1/16	2030	3.45	6.22	825	1410	49
54	21⅞	39⅛	28⅜	53⅜	46 15/16	46⅜	63⅝	27	11	1 1/16	1 1/16	1840	4.20	7.56	1125	1800	54
60	24⅛	43⅛	31½	58¾	51⅛	50⅛	68⅛	30	12 3/16	1 15/16	1 15/16	1660	5.15	9.27	1375	2200	60
66	26⅝	47⅝	34⅝	64⅛	55 5/16	53⅛	74⅛	33	13 7/16	1 15/16	1 15/16	1500	6.27	11.28	1850	2480	66
73	29⅜	52⅝	38¼	70¼	60½	56⅝	79⅞	36½	14⅞	2 3/16	2 3/16	1360	7.65	13.78	2000	3075	73
80½	32¼	57⅞	42¼	76 15/16	64¾	62⅞	89½	40¼	16⅜	2 7/16	2 1/16	1230	9.33	16.81	2175	3325	80½
89	35⅝	63⅞	46¾	84 1/16	71⅜	68	96¼	44½	18 1/16	2 1/16	2 1/16	1115	11.41	20.55	2650	3910	89
98	39¼	70½	51⅜	93⅜	78¾	73¾	105	49	19⅞	2 15/16	2 15/16	1015	13.85	24.94	3250	4875	98
108½	43⅜	77⅞	56¾	102⅞	86¾	77¾	113⅞	54¼	22	2 15/16	3 3/16	915	16.92	30.46	4000	5800	108½
120	48	86⅛	62¾	114	96	87½	127⅞	60	24 5/16	2 15/16	3 7/16	830	20.71	37.26	5000	7000	120
132	52⅝	94⅝	68⅛	125 9/16	105½	94⅜	137¼	66	26 1/16	3 7/16	3 1/16	750	25.05	45.14	6210	8900	132

All dimensions in inches.

CLASS II-A
MAX. RPM
3310

CLARAGE TYPE NH FANS

NON-OVERLOADING MEDIUM SPEED HIGH EFFICIENCY

Outlet Size 12" x 15 13/16" Outside **Wheel Diameter 15 in.**

Inlet Size 18 1/4" Dia. Outside **Outlet Area 1.27 Sq. Ft. Inside**

Tip Speed = RPM × 3.93 **Max. BHP = .21 $\left(\frac{RPM}{1000}\right)^3$**

SIZE 30
SINGLE WIDTH
SINGLE INLET

Volume of Air CFM	Outlet Velocity ft per M	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	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1016	800	678	.064	761	.086	842	.112	921	.140	999	.170	1073	.203	1143	.236	1274	.309	1393	.387	1503	.470
1143	900	722	.077	798	.102	871	.130	943	.157	1014	.189	1083	.222	1150	.257	1278	.333	1396	.413	1505	.498
1270	1000	768	.093	839	.121	906	.149	972	.179	1036	.211	1101	.245	1164	.281	1285	.358	1401	.441	1509	.528
1397	1100	818	.112	883	.141	946	.171	1007	.203	1066	.236	1124	.272	1183	.309	1298	.387	1409	.471	1515	.563
1524	1200	869	.133	929	.165	988	.197	1045	.231	1101	.265	1155	.302	1209	.340	1317	.420	1421	.507	1523	.599
1651	1300	922	.159	978	.192	1033	.226	1087	.262	1139	.298	1190	.337	1241	.375	1340	.458	1439	.546	1536	.640
1778	1400	977	.187	1028	.222	1080	.259	1131	.296	1180	.335	1229	.375	1276	.415	1369	.500	1462	.591	1554	.686
1905	1500	1032	.220	1080	.257	1129	.295	1176	.334	1223	.376	1269	.417	1315	.458	1403	.546	1490	.640	1576	.738
2032	1600	1089	.257	1134	.295	1179	.335	1224	.377	1268	.419	1312	.464	1356	.507	1440	.598	1522	.693	1603	.794
2159	1700	1147	.298	1188	.338	1231	.380	1273	.423	1316	.467	1357	.513	1398	.560	1479	.654	1558	.753	1635	.856
2286	1800	1206	.344	1244	.385	1283	.428	1323	.474	1364	.521	1404	.569	1443	.617	1520	.716	1596	.818	1669	.923
2413	1900	1266	.396	1299	.438	1338	.483	1376	.530	1414	.579	1452	.629	1489	.679	1563	.782	1635	.888	1707	.996
2540	2000			1357	.495	1392	.542	1428	.591	1465	.641	1502	.693	1537	.745	1608	.853	1677	.963	1746	1.07
2667	2100			1416	.560	1448	.607	1482	.657	1516	.709	1551	.763	1585	.818	1653	.930	1721	1.04	1787	1.16
2794	2200			1474	.630	1505	.679	1536	.729	1569	.784	1602	.839	1635	.895	1701	1.01	1766	1.13	1829	1.25
2921	2300					1561	.756	1592	.809	1623	.864	1654	.919	1687	.979	1749	1.10	1811	1.22	1873	1.35
3048	2400					1620	.839	1648	.894	1678	.951	1708	1.01	1738	1.07	1798	1.19	1858	1.32	1918	1.45
3175	2500					1679	.931	1705	.986	1733	1.04	1761	1.10	1791	1.17	1849	1.30	1907	1.42	1964	1.56
3302	2600							1762	1.08	1789	1.14	1817	1.21	1844	1.27	1901	1.40	1955	1.54	2011	1.68
3556	2800							1880	1.31	1903	1.37	1928	1.44	1953	1.50	2005	1.64	2056	1.78	2108	1.92
3810	3000							1999	1.56	2019	1.63	2042	1.69	2065	1.77	2113	1.91	2161	2.04	2209	2.21
4064	3200									2138	1.92	2149	1.98	2178	2.06	2222	2.20	2267	2.35	2312	2.51
4318	3400									2259	2.25	2275	2.31	2294	2.39	2335	2.54	2376	2.71	2418	2.87
4572	3600									2382	2.62	2396	2.68	2412	2.76	2448	2.91	2488	3.09	2527	3.25

Volume of Air CFM	Outlet Velocity ft per M	2" SP		2 1/2" SP		3" SP		3 1/2" SP		4" SP		4 1/2" SP		5" SP		5 1/2" SP		6" SP		6 1/2" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1270	1000	1611	.621	1796	.819																
1397	1100	1615	.657	1800	.860																
1524	1200	1621	.696	1804	.904																
1651	1300	1630	.739	1809	.953	1976	1.18	2130	1.42	2275	1.68										
1778	1400	1644	.787	1817	1.00	1981	1.24	2134	1.49	2278	1.75										
1905	1500	1661	.841	1828	1.06	1987	1.30	2138	1.55	2281	1.82										
2032	1600	1684	.899	1844	1.12	1997	1.36	2145	1.63	2286	1.89	2420	2.17	2548	2.46	2670	2.78	2786	3.10	2898	3.43
2159	1700	1711	.963	1862	1.19	2011	1.44	2154	1.70	2292	1.97	2425	2.26	2551	2.55	2672	2.87	2789	3.20	2901	3.53
2286	1800	1742	1.03	1885	1.26	2027	1.51	2166	1.78	2300	2.06	2431	2.35	2557	2.65	2677	2.97	2792	3.30	2904	3.63
2413	1900	1776	1.11	1913	1.35	2048	1.60	2182	1.87	2312	2.15	2440	2.45	2563	2.76	2682	3.07	2797	3.42	2908	3.75
2540	2000	1812	1.19	1943	1.44	2072	1.69	2201	1.96	2328	2.25	2451	2.55	2570	2.86	2688	3.19	2802	3.53	2913	3.86
2667	2100	1851	1.28	1977	1.52	2101	1.79	2223	2.06	2345	2.35	2466	2.65	2582	2.97	2697	3.30	2808	3.64		
2794	2200	1891	1.37	2013	1.63	2131	1.89	2249	2.17	2366	2.46	2482	2.77	2597	3.10	2708	3.43	2817	3.77		
2921	2300	1933	1.47	2051	1.73	2166	2.01	2278	2.29	2391	2.59	2502	2.90	2613	3.23	2722	3.56	2828	3.91		
3048	2400	1976	1.57	2090	1.84	2201	2.12	2310	2.41	2418	2.72	2526	3.04	2633	3.37	2739	3.70	2842	4.05		
3175	2500	2020	1.69	2132	1.97	2239	2.25	2344	2.55	2448	2.86	2552	3.18	2655	3.51	2758	3.85	2860	4.20		
3302	2600	2066	1.82	2173	2.10	2279	2.39	2380	2.69	2481	3.00	2581	3.33	2680	3.66	2779	4.01	2878	4.37		
3556	2800	2160	2.07	2261	2.37	2361	2.68	2457	3.00	2553	3.31	2646	3.66	2739	4.00	2831	4.36	2923	4.72		
3810	3000	2258	2.36	2353	2.68	2447	3.00	2539	3.33	2630	3.67	2718	4.01	2806	4.37	2893	4.74	2979	5.12		
4064	3200	2357	2.68	2448	3.01	2537	3.35	2625	3.71	2711	4.05	2796	4.42	2880	4.79	2962	5.17	3044	5.55		
4318	3400	2461	3.04	2546	3.38	2631	3.75	2715	4.11	2797	4.48	2878	4.85	2959	5.23	3037	5.63	3115	6.02		
4572	3600	2567	3.43	2647	3.78	2727	4.17	2808	4.55	2887	4.94	2964	5.53	3040	5.73	3116	6.13				
4826	3800	2675	3.86	2752	4.24	2828	4.62	2904	5.03	2978	5.44	3052	5.84	3127	6.26	3200	6.68				
5080	4000	2784	4.33	2856	4.72	2930	5.13	3003	5.54	3074	5.97	3145	6.39	3216	6.82	3286	7.26				

All Capacities Based on Standard Air (Density .075#/cu.ft.—70° F.—29.92" Hg. Bar.)

NOTES: (1) Ball bearings are standard on all Type NH, Class II-A Fans. (2) Values underlined indicate the most efficient point of operation for each pressure. (3) When equipped with Vortex Control increase speed 1%.

SIZE 33
SINGLE WIDTH
SINGLE INLET

CLARAGE TYPE NH FANS

NON-OVERLOADING MEDIUM SPEED HIGH EFFICIENCY

CLASS II-A
MAX. RPM
3010

Outlet size 13⅜" x 17⅝" Outside — **Wheel Diameter 16½ in.**

Inlet Size 19¾" Dia. Outside — **Outlet Area 1.56 Sq. Ft. Inside**

Tip Speed = RPM × 4.32 — **Max. BHP = .33 $\left(\frac{RPM}{1000}\right)^3$**

Volume of Air CFM	Outlet Velocity ft per M	¼" SP		⅜" SP		½" SP		⅝" SP		¾" SP		⅞" SP		1" SP		1¼" SP		1½" SP		1¾" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1248	800	617	.078	692	.106	766	.137	839	.172	909	.209	976	.250	1040	.290	1159	.379	1267	.476	1368	.577
1404	900	656	.095	726	.125	792	.159	858	.193	922	.232	985	.273	1046	.315	1163	.409	1270	.507	1369	.612
1560	1000	699	.114	763	.148	824	.183	884	.220	943	.259	1001	.301	1059	.345	1169	.440	1275	.541	1373	.649
1716	1100	744	.137	803	.173	860	.211	916	.250	969	.290	1023	.334	1076	.379	1181	.476	1281	.579	1378	.691
1872	1200	791	.164	845	.203	899	.242	951	.284	1001	.326	1051	.371	1100	.418	1198	.516	1293	.622	1385	.736
2028	1300	839	.195	889	.236	940	.278	989	.321	1036	.367	1083	.413	1129	.460	1219	.563	1309	.671	1397	.786
2184	1400	888	.229	935	.273	982	.315	1028	.363	1074	.412	1118	.460	1161	.510	1246	.615	1330	.725	1414	.842
2340	1500	939	.270	983	.315	1027	.362	1070	.410	1113	.462	1155	.512	1196	.563	1276	.671	1355	.786	1434	.906
2496	1600	990	.315	1031	.362	1072	.412	1113	.463	1154	.515	1194	.569	1233	.622	1310	.735	1385	.852	1458	.975
2652	1700	1044	.367	1081	.415	1119	.466	1158	.519	1197	.574	1235	.630	1272	.688	1346	.803	1417	.925	1487	1.05
2808	1800	1097	.423	1131	.473	1168	.526	1204	.586	1241	.640	1277	.699	1313	.758	1383	.880	1452	1.00	1518	1.13
2964	1900	1152	.487	1182	.538	1217	.593	1252	.651	1286	.711	1321	.772	1355	.835	1422	.961	1488	1.09	1553	1.22
3120	2000			1235	.608	1266	.666	1299	.725	1333	.788	1366	.852	1398	.916	1463	1.05	1526	1.18	1588	1.32
3276	2100			1288	.688	1317	.746	1348	.807	1379	.870	1411	.938	1442	1.00	1504	1.14	1566	1.28	1625	1.42
3433	2200			1341	.774	1369	.835	1397	.895	1428	.963	1458	1.03	1487	1.10	1547	1.24	1606	1.39	1664	1.54
3588	2300					1420	.928	1448	.994	1477	1.06	1505	1.13	1534	1.20	1591	1.35	1648	1.50	1704	1.65
3744	2400					1473	1.03	1500	1.10	1526	1.17	1553	1.24	1581	1.31	1636	1.46	1691	1.62	1744	1.78
3900	2500					1527	1.14	1551	1.21	1576	1.28	1602	1.36	1629	1.43	1682	1.59	1735	1.75	1787	1.92
4056	2600							1603	1.33	1628	1.41	1653	1.48	1678	1.56	1729	1.72	1779	1.89	1829	2.06
4368	2800							1710	1.61	1731	1.68	1754	1.76	1777	1.84	1824	2.01	1871	2.18	1918	2.36
4680	3000							1818	1.92	1837	2.00	1857	2.07	1878	2.17	1922	2.34	1966	2.51	2009	2.71
4992	3200									1945	2.36	1962	2.43	1981	2.53	2021	2.70	2062	2.89	2103	3.09
5304	3400									2055	2.76	2070	2.84	2087	2.93	2123	3.12	2161	3.32	2200	3.53
5616	3600									2167	3.21	2180	3.29	1940	3.39	2227	3.57	2263	3.79	2299	3.99

Volume of Air CFM	Outlet Velocity ft per M	2" SP		2½" SP		3" SP		3½" SP		4" SP		4½" SP		5" SP		5½" SP		6" SP		6½" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1560	1000	1465	.763	1634	1.01																
1716	1100	1469	.807	1637	1.06																
1872	1200	1475	.855	1641	1.11																
2028	1300	1483	.908	1646	1.17	1798	1.45	1937	1.75	2069	2.06										
2184	1400	1495	.967	1653	1.23	1802	1.52	1941	1.83	2072	2.15										
2340	1500	1511	1.03	1663	1.30	1807	1.59	1945	1.90	2075	2.23										
2496	1600	1532	1.10	1677	1.38	1817	1.67	1951	2.00	2080	2.32	2202	2.67	2318	3.03	2429	3.42	2534	3.81	2637	4.21
2652	1700	1556	1.18	1694	1.46	1829	1.76	1959	2.09	2085	2.42	2206	2.78	2321	3.14	2431	3.53	2537	3.93	2639	4.34
2808	1800	1584	1.27	1715	1.55	1844	1.86	1970	2.18	2093	2.53	2212	2.89	2326	3.26	2435	3.65	2540	4.06	2642	4.46
2964	1900	1616	1.36	1740	1.65	1863	1.97	1985	2.29	2104	2.64	2219	3.01	2331	3.39	2440	3.78	2545	4.20	2645	4.60
3120	2000	1649	1.46	1768	1.76	1885	2.07	2003	2.40	2118	2.76	2229	3.14	2338	3.51	2445	3.92	2549	4.34	2650	4.74
3276	2100	1684	1.58	1799	1.87	1911	2.20	2022	2.53	2133	2.89	2243	3.26	2349	3.65	2454	4.06	2555	4.48		
3433	2200	1721	1.68	1831	2.00	1939	2.32	2046	2.67	2153	3.03	2258	3.40	2362	3.81	2464	4.21	2563	4.63		
3588	2300	1759	1.81	1866	2.12	1970	2.46	2073	2.81	2175	3.18	2276	3.56	2377	3.96	2477	4.37	2573	4.80		
3744	2400	1798	1.93	1902	2.26	2002	2.61	2101	2.96	2200	3.34	2298	3.73	2395	4.13	2492	4.54	2586	4.98		
3900	2500	1838	2.07	1939	2.42	2037	2.76	2132	3.14	2227	3.51	2322	3.90	2416	4.31	2509	4.73	2601	5.16		
4056	2600	1879	2.23	1977	2.57	2073	2.93	2165	3.31	2257	3.68	2348	4.09	2438	4.49	2528	4.93	2619	5.37		
4368	2800	1965	2.54	2057	2.92	2147	3.29	2235	3.68	2322	4.07	2407	4.49	2492	4.91	2575	5.35	2659	5.80		
4680	3000	2054	2.90	2140	3.29	2226	3.68	2310	4.09	2392	4.51	2473	4.93	2553	5.37	2632	5.82	2710	6.29		
4992	3200	2144	3.29	2227	3.70	2308	4.12	2388	4.56	2467	4.98	2544	5.43	2620	5.88	2695	6.35	2769	6.82		
5304	3400	2239	3.73	2316	4.15	2394	4.60	2469	5.05	2544	5.51	2618	5.96	2691	6.43	2763	6.91	2834	7.39		
5616	3600	2335	4.21	2408	4.65	2481	5.12	2554	5.58	2626	6.07	2697	6.55	2766	7.04	2835	7.53				
5928	3800	2434	4.74	2503	5.21	2572	5.68	2642	6.18	2709	6.68	2777	7.18	2844	7.69	2911	8.21				
6240	4000	2532	5.32	2599	5.80	2666	6.30	2732	6.80	2796	7.33	2861	7.85	2925	8.38	2989	8.92				

All Capacities Based on Standard Air (Density .075#/cu.ft.—70° F.—29.92" Hg. Bar.)

NOTES: (1) Ball bearings are standard on all Type NH, Class II-A Fans. (2) Values underlined indicate the most efficient point of operation for each pressure. (3) When equipped with Vortex Control increase speed 1%.

CLASS II-A
MAX. RPM
2720

CLARAGE TYPE NH FANS

NON-OVERLOADING MEDIUM SPEED HIGH EFFICIENCY

SIZE 36½
SINGLE WIDTH
SINGLE INLET

Outlet Size 14⅝" x 19³⁄₁₆" Outside **Wheel Diameter 18¼ in.**

Inlet Size 22" Dia. Outside **Outlet Area 1.90 Sq. Ft. Inside**

Tip Speed = RPM × 4.78 **Max. BHP = .57 $\left(\frac{RPM}{1000}\right)^3$**

Volume of Air CFM	Outlet Velocity Feet per Minute	¼" SP		⅜" SP		½" SP		⅝" SP		¾" SP		⅞" SP		1" SP		1¼" SP		1½" SP		1¾" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1520	800	553	.09	626	.13	694	.16	759	.20	821	.25	883	.29	941	.35	1049	.45	1147	.56	1238	.68
1710	900	539	.11	653	.15	716	.19	778	.23	835	.27	891	.32	946	.37	1053	.48	1150	.60	1240	.73
1900	1000	627	.13	685	.17	743	.22	799	.26	854	.31	907	.36	957	.40	1058	.52	1154	.64	1243	.77
2090	1100	667	.16	720	.21	772	.25	825	.30	875	.35	927	.40	975	.45	1068	.56	1159	.68	1247	.82
2280	1200	708	.19	758	.24	806	.29	854	.34	903	.39	950	.44	996	.50	1085	.61	1171	.73	1253	.86
2470	1300	751	.23	797	.28	843	.33	887	.38	932	.44	977	.49	1021	.55	1104	.67	1186	.78	1264	.92
2660	1400	796	.27	839	.32	881	.37	923	.43	963	.49	1006	.54	1047	.61	1127	.73	1205	.86	1280	.99
2850	1500	842	.32	880	.37	921	.43	959	.48	998	.55	1036	.61	1076	.67	1152	.80	1227	.93	1299	1.07
3040	1600	888	.37	925	.43	962	.49	998	.55	1035	.61	1070	.67	1107	.74	1180	.87	1251	1.01	1321	1.16
3230	1700	933	.43	970	.49	1003	.55	1039	.61	1073	.68	1107	.74	1141	.81	1209	.95	1278	1.10	1345	1.25
3420	1800	980	.49	1015	.55	1045	.62	1080	.69	1112	.75	1144	.82	1178	.89	1241	1.04	1306	1.19	1370	1.35
3610	1900	1029	.56	1060	.63	1090	.70	1121	.77	1153	.84	1183	.91	1215	.98	1275	1.14	1337	1.29	1398	1.46
3800	2000			1105	.71	1136	.78	1163	.86	1194	.93	1224	1.01	1253	1.08	1312	1.24	1369	1.40	1427	1.57
3990	2100			1151	.80	1182	.87	1207	.95	1236	1.04	1265	1.11	1293	1.19	1349	1.35	1404	1.51	1458	1.69
4180	2200			1198	.90	1228	.97	1253	1.05	1278	1.13	1306	1.22	1334	1.30	1387	1.46	1440	1.64	1492	1.82
4370	2300					1274	1.08	1299	1.16	1322	1.25	1348	1.34	1375	1.43	1427	1.59	1477	1.77	1528	1.96
4560	2400					1320	1.20	1345	1.28	1368	1.37	1390	1.47	1416	1.55	1467	1.73	1516	1.90	1565	2.11
4750	2500					1366	1.33	1389	1.42	1413	1.50	1435	1.60	1458	1.69	1508	1.88	1555	2.07	1602	2.26
4940	2600							1433	1.55	1459	1.64	1480	1.75	1502	1.84	1550	2.03	1594	2.22	1640	2.43
5320	2800							1527	1.87	1549	1.96	1570	2.07	1593	2.17	1632	2.36	1676	2.58	1720	2.79
5700	3000							1625	2.22	1642	2.32	1661	2.43	1683	2.53	1721	2.76	1760	2.98	1802	3.19
6080	3200									1738	2.72	1754	2.85	1774	2.95	1812	3.17	1847	3.44	1884	3.67
6460	3400									1835	3.17	1851	3.31	1866	3.44	1903	3.67	1937	3.90	1969	4.14
6840	3600									1924	3.61	1948	3.82	1960	3.95	1994	4.16	2037	4.43	2059	4.69

Volume of Air CFM	Outlet Velocity ft per M	2" SP		2½" SP		3" SP		3½" SP		4" SP		4½" SP		5" SP		5½" SP		6" SP		6½" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1900	1000	1327	.91	1481	1.19																
2090	1100	1330	.96	1483	1.26																
2280	1200	1334	1.01	1486	1.33																
2470	1300	1341	1.07	1490	1.39	1627	1.73	1754	2.07	1874	2.53										
2660	1400	1353	1.13	1495	1.45	1631	1.81	1757	2.17	1876	2.57										
2850	1500	1369	1.22	1504	1.53	1635	1.88	1761	2.26	1879	2.66										
3040	1600	1388	1.31	1517	1.62	1643	1.96	1766	2.34	1882	2.76	1993	3.17	2098	3.61	2199	4.05	2295	4.50	2387	4.96
3230	1700	1409	1.41	1535	1.73	1654	2.05	1772	2.45	1887	2.85	1997	3.29	2101	3.74	2201	4.16	2297	4.66	2389	5.15
3420	1800	1433	1.51	1554	1.84	1670	2.19	1783	2.57	1893	2.98	2001	3.44	2105	3.88	2204	4.31	2300	4.85	2391	5.34
3610	1900	1458	1.62	1575	1.98	1688	2.32	1796	2.70	1903	3.10	2008	3.55	2109	4.01	2209	4.47	2303	4.98	2394	5.51
3800	2000	1486	1.74	1599	2.09	1708	2.47	1814	2.87	1916	3.23	2016	3.69	2115	4.14	2214	4.60	2307	5.13	2398	5.66
3990	2100	1515	1.86	1624	2.22	1730	2.62	1833	3.00	1932	3.42	2029	3.84	2125	4.28	2219	4.79	2312	5.28		
4180	2200	1545	2.00	1651	2.38	1753	2.77	1854	3.17	1950	3.59	2044	4.01	2135	4.47	2228	4.94	2318	5.45		
4370	2300	1577	2.13	1679	2.53	1779	2.93	1876	3.36	1970	3.78	2063	4.20	2152	4.66	2240	5.11	2327	5.64		
4560	2400	1612	2.28	1709	2.70	1806	3.10	1900	3.53	1992	3.97	2082	4.43	2170	4.86	2254	5.36	2339	5.83		
4750	2500	1649	2.47	1740	2.87	1834	3.29	1926	3.72	2015	4.16	2103	4.64	2189	5.09	2272	5.59	2354	6.06		
4940	2600	1687	2.62	1773	3.04	1863	3.50	1952	3.93	2041	4.41	2126	4.85	2209	5.34	2291	5.81	2371	6.33		
5320	2800	1762	2.98	1845	3.44	1926	3.90	2009	4.37	2093	4.85	2174	5.36	2254	5.85	2333	6.37	2410	6.86		
5700	3000	1841	3.44	1919	3.88	1996	4.37	2072	4.85	2152	5.38	2228	5.87	2304	6.40	2380	6.92	2454	7.47		
6080	3200	1923	3.90	1996	4.39	2070	4.86	2140	5.40	2214	5.89	2287	6.44	2360	6.97	2431	7.54	2503	8.11		
6460	3400	2006	4.41	2077	4.90	2146	5.43	2213	5.72	2282	6.50	2350	7.24	2419	7.64	2485	8.21	2555	8.80		
6840	3600	2090	4.96	2159	5.51	2224	6.02	2289	6.59	2355	7.14	2418	7.73	2482	8.34	2547	8.93				
7220	3800	2178	5.59	2242	6.16	2305	6.73	2367	7.30	2429	7.87	2491	8.47	2551	9.08	2611	9.71				
7600	4000	2272	6.23	2326	6.86	2389	7.47	2448	8.04	2506	8.65	2565	9.27	2625	9.88	2680	10.55				

All Capacities Based on Standard Air (Density .075#/cu.ft.—70° F.—29.92" Hg. Bar.)

NOTES: (1) Ball bearings are standard on all Type NH, Class II-A Fans. (2) Values underlined indicate the most efficient point of operation for each pressure. (3) When equipped with Vortex Control increase speed 1%.

SIZE 40
SINGLE WIDTH
SINGLE INLET

CLARAGE TYPE NH FANS

NON-OVERLOADING MEDIUM SPEED HIGH EFFICIENCY

CLASS II-A
MAX. RPM
2483

Outlet Size 16" x 21 1/16" Outside **Wheel Diameter 20 in.**

Inlet Size 24" Dia. Outside **Outlet Area 2.30 Sq. Ft. Inside**

Tip Speed = RPM × 5.24 **Max. BHP = .90 $\left(\frac{RPM}{1000}\right)^3$**

Volume of Air CFM	Outlet Velocity Feet per Minute	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	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1840	800	505	.11	571	.15	633	.20	692	.24	749	.30	805	.35	859	.42	957	.55	1047	.68	1130	.82
2070	900	537	.14	596	.18	653	.23	709	.28	762	.33	813	.39	863	.45	960	.59	1049	.73	1131	.88
2300	1000	572	.16	624	.21	677	.26	729	.32	779	.37	827	.43	874	.49	965	.63	1052	.78	1134	.94
2530	1100	608	.20	657	.25	705	.30	753	36	799	.42	845	.48	890	.54	975	.67	1057	.82	1137	.99
2760	1200	646	.23	691	.29	735	.35	779	.41	824	.47	867	.54	909	.60	990	.74	1067	.88	1143	1.05
2990	1300	685	.28	727	.34	769	.40	809	.46	850	.53	891	.60	931	.67	1007	.81	1082	.95	1153	1.12
3220	1400	727	.33	765	.39	803	.45	842	.52	879	.59	917	.66	955	.73	1028	.89	1099	1.04	1167	1.20
3450	1500	769	.38	803	.45	840	.52	875	.59	910	.66	945	.73	981	.81	1051	.97	1119	1.13	1185	1.30
3680	1600	811	.45	842	.52	877	.59	910	.66	944	.74	976	.82	1010	.89	1076	1.06	1141	1.23	1205	1.40
3910	1700	853	.52	884	.59	915	.67	947	.74	979	.82	1010	.90	1041	.98	1103	1.15	1165	1.33	1227	1.51
4140	1800	895	.60	926	.67	953	.75	985	.83	1015	.91	1044	1.00	1075	1.08	1132	1.26	1192	1.44	1250	1.64
4370	1900	939	.68	968	.76	994	.84	1023	.93	1052	1.02	1080	1.10	1108	1.19	1163	1.38	1219	1.56	1275	1.76
4600	2000			1010	.86	1036	.95	1061	1.04	1090	1.13	1117	1.22	1143	1.31	1197	1.50	1249	1.69	1302	1.90
4830	2100			1052	.97	1078	1.06	1100	1.15	1128	1.25	1154	1.34	1180	1.44	1231	1.63	1281	1.83	1330	2.04
5060	2200			1094	1.09	1120	1.18	1141	1.28	1166	1.37	1192	1.48	1217	1.58	1265	1.77	1315	1.98	1361	2.20
5290	2300					1162	1.31	1183	1.41	1206	1.52	1230	1.62	1254	1.73	1301	1.93	1348	2.14	1394	2.37
5520	2400					1204	1.45	1225	1.55	1248	1.66	1268	1.78	1292	1.88	1338	2.10	1383	2.30	1428	2.55
5750	2500					1246	1.61	1267	1.71	1290	1.82	1309	1.94	1330	2.05	1376	2.27	1418	2.51	1462	2.74
5980	2600							1309	1.88	1332	1.99	1350	2.12	1370	2.23	1414	2.46	1455	2.69	1496	2.94
6440	2800							1393	2.26	1413	2.37	1432	2.51	1453	2.62	1490	2.85	1531	3.13	1569	3.38
6900	3000							1483	2.69	1496	2.81	1515	2.94	1536	3.06	1571	3.34	1607	3.61	1644	3.86
7360	3200									1583	3.29	1600	3.45	1619	3.57	1653	3.84	1685	4.17	1719	4.44
7820	3400									1670	3.84	1688	4.00	1702	4.16	1736	4.44	1767	4.72	1796	5.01
8280	3600									1757	4.37	1777	4.62	1788	4.78	1819	5.04	1852	5.36	1878	5.68

Volume of Air CFM	Outlet Velocity ft per M	2" SP		2 1/2" SP		3" SP		3 1/2" SP		4" SP		4 1/2" SP		5" SP		5 1/2" SP		6" SP		6 1/2" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
2300	1000	1210	1.10	1351	1.44																
2530	1100	1213	1.16	1353	1.52																
2760	1200	1217	1.23	1355	1.61																
2990	1300	1223	1.29	1359	1.68	1484	2.10	1600	2.51	1709	3.06										
3220	1400	1234	1.37	1364	1.76	1487	2.19	1603	2.62	1711	3.11										
3450	1500	1249	1.47	1372	1.85	1491	2.28	1606	2.74	1714	3.22										
3680	1600	1266	1.58	1384	1.96	1499	2.37	1611	2.83	1717	3.34	1818	3.84	1914	4.37	2006	4.90	2094	5.45	2177	6.00
3910	1700	1286	1.70	1400	2.09	1509	2.48	1617	2.97	1721	3.45	1822	3.98	1917	4.53	2008	5.04	2095	5.64	2179	6.23
4140	1800	1307	1.83	1418	2.23	1523	2.65	1626	3.11	1727	3.61	1826	4.16	1920	4.69	2011	5.22	2098	5.87	2181	6.46
4370	1900	1330	1.96	1437	2.39	1540	2.81	1639	3.27	1736	3.75	1831	4.30	1924	4.85	2016	5.41	2101	6.05	2184	6.67
4600	2000	1355	2.11	1459	2.53	1558	2.99	1655	3.47	1748	3.91	1839	4.46	1930	5.01	2020	5.57	2105	6.21	2187	6.85
4830	2100	1382	2.26	1481	2.69	1578	3.17	1672	3.63	1762	4.14	1851	4.65	1939	5.18	2024	5.80	2109	6.39		
5060	2200	1409	2.42	1506	2.88	1599	3.36	1691	3.84	1779	4.35	1865	4.85	1947	5.41	2032	5.98	2114	6.60		
5290	2300	1439	2.58	1531	3.06	1623	3.54	1711	4.07	1797	4.58	1881	5.08	1963	5.64	2043	6.19	2123	6.83		
5520	2400	1470	2.76	1559	3.27	1647	3.75	1733	4.28	1817	4.81	1899	5.36	1979	5.89	2056	6.49	2134	7.06		
5750	2500	1504	2.99	1587	3.47	1673	3.98	1756	4.51	1838	5.04	1918	5.61	1997	6.16	2073	6.76	2147	7.34		
5980	2600	1539	3.17	1618	3.68	1700	4.23	1781	4.76	1862	5.34	1939	5.87	2015	6.46	2090	7.04	2163	7.66		
6440	2800	1607	3.61	1683	4.16	1757	4.72	1833	5.29	1909	5.87	1984	6.49	2056	7.08	2128	7.71	2198	8.30		
6900	3000	1680	4.16	1750	4.69	1821	5.29	1890	5.87	1963	6.51	2033	7.11	2102	7.75	2171	8.37	2239	9.04		
7360	3200	1754	4.72	1821	5.31	1889	5.89	1953	6.53	2019	7.13	2086	7.80	2152	8.44	2218	9.13	2283	9.82		
7820	3400	1830	5.34	1895	5.93	1957	6.58	2019	6.92	2082	7.87	2143	8.76	2206	9.25	2267	9.94	2331	10.65		
8280	3600	1907	6.00	1970	6.67	2029	7.29	2088	7.98	2149	8.65	2206	9.36	2264	10.10	2323	10.81				
8740	3800	1987	6.76	2045	7.45	2104	8.14	2159	8.83	2216	9.52	2273	10.26	2327	10.99	2382	11.75				
9200	4000	2072	7.54	2122	8.30	2180	9.04	2233	9.73	2286	10.47	2340	11.22	2394	11.96	2445	12.77				

All Capacities Based on Standard Air (Density .075#/cu.ft.—70° F.—29.92" Hg. Bar.)

NOTES: (1) Ball bearings are standard on all Type NH, Class II-A Fans. (2) Values underlined indicate the most efficient point of operation for each pressure. (3) When equipped with Vortex Control increase speed 1%.

CLASS II-A
MAX. RPM
2232

CLARAGE TYPE NH FANS

NON-OVERLOADING MEDIUM SPEED HIGH EFFICIENCY

Outlet Size 17¾" x 23⁷⁄₁₆" Outside **Wheel Diameter 22¼ in.**

Inlet Size 27" Dia. Outside **Outlet Area 2.83 Sq. Ft. Inside**

Tip Speed = RPM × 5.83 **Max. BHP = 1.54 $\left(\frac{RPM}{1000}\right)^3$**

SIZE 44½
SINGLE WIDTH
SINGLE INLET

Volume of Air CFM	Outlet Velocity Feet per Minute	¼" SP		⅜" SP		½" SP		⅝" SP		¾" SP		⅞" SP		1" SP		1¼" SP		1½" SP		1¾" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
2264	800	454	.14	513	.19	569	.24	622	.30	673	.37	724	.44	772	.52	860	.67	941	.84	1015	1.01
2547	900	483	.17	536	.22	587	.28	637	.34	685	.41	731	.48	776	.55	863	.72	943	.90	1017	1.09
2830	1000	514	.20	561	.26	609	.33	655	.39	700	.46	743	.53	785	.60	867	.77	946	.96	1019	1.15
3113	1100	547	.24	591	.31	633	37	677	.44	719	52	760	.59	800	.67	876	.83	950	1.01	1022	1.22
3396	1200	581	.29	621	.35	661	43	701	.50	740	.58	779	.66	817	.74	889	.91	959	1.09	1027	1.29
3679	1300	616	.34	654	.42	691	45	727	.57	764	.65	801	.73	837	.82	905	1.00	972	1.17	1036	1.37
3962	1400	653	.40	688	.48	722	.56	756	.64	790	72	824	.81	858	.90	924	1.09	988	1.28	1049	1.48
4245	1500	690	.47	722	.55	755	.64	786	.72	818	.81	849	.90	882	1.00	945	1.19	1006	1.39	1065	1.60
4528	1600	727	.55	758	.64	789	.72	818	.82	849	.91	878	1.00	908	1.10	967	1.30	1026	1.51	1083	1.73
4811	1700	765	.64	795	.72	822	.82	851	.91	881	1.01	908	1.11	936	1.21	992	1.42	1048	1.64	1102	1.86
5094	1800	803	.74	832	.82	857	.92	885	1.02	914	1.12	938	1.23	966	1.33	1017	1.55	1071	1.78	1123	2.01
5377	1900	844	.84	869	.93	893	1.04	919	1.15	947	1.25	970	1.36	996	1.47	1045	1.69	1096	1.92	1146	2.17
5660	2000			906	1.05	931	1.16	954	1.28	980	1.39	1004	1.50	1027	1.61	1076	1.84	1122	2.08	1170	2.33
5943	2100			944	1.19	969	1.30	990	1.42	1013	1.54	1037	1 65	1060	1 76	1106	2.00	1151	2 26	1196	2.51
6226	2200			982	1.34	1005	1.45	1027	1.57	1048	1.69	1071	1.82	1094	1.94	1137	2.18	1181	2.44	1223	2.71
6509	2300					1043	1.61	1064	1.73	1084	1.86	1105	1.99	1128	2.12	1170	2.37	1211	2.63	1251	2.91
6792	2400					1080	1.79	1101	1.91	1121	2.05	1140	2.18	1162	2.31	1203	2.58	1243	2.83	1282	3.14
7075	2500					1118	1.99	1139	2.11	1159	2.24	1176	2.38	1196	2.52	1236	2.80	1275	3.08	1313	3.37
7358	2600							1178	2.31	1197	2.45	1214	2.61	1231	2.74	1270	3.03	1307	3.31	1345	3.62
7924	2800							1252	2.78	1272	2.91	1289	3.08	1305	3.23	1338	3.51	1376	3.85	1410	4.16
8490	3000							1333	3.31	1348	3.45	1362	3.62	1380	3.76	1411	4.10	1443	4.44	1477	4.75
9056	3200									1425	4.05	1438	4.25	1455	4.39	1486	4.73	1514	5.12	1545	5.46
9622	3400									1502	4.73	1518	4.92	1530	5.12	1561	5.46	1588	5.80	1615	6.17
10188	3600									1580	5.38	1598	5.69	1607	5.89	1636	6.20	1664	6.59	1688	6.99

Volume of Air CFM	Outlet Velocity ft per M	2" SP		2½" SP		3" SP		3½" SP		4" SP		4½" SP		5" SP		5½" SP		6" SP		6½" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
2830	1000	1088	1.35	1214	1.77																
3113	1100	1090	1.43	1216	1.87																
3396	1200	1094	1.51	1218	1.98																
3679	1300	1099	1.59	1221	2.06	1334	2.58	1438	3.08	1536	3.76										
3962	1400	1109	1.69	1226	2.16	1337	2.69	1441	3.23	1538	3.82										
4245	1500	1122	1.81	1233	2.28	1340	2.80	1444	3.37	1540	3.96										
4528	1600	1138	1.94	1244	2.41	1347	2.91	1448	3.48	1543	4.10	1634	4.73	1720	5.38	1803	6.03	1882	6.71	1957	7.39
4811	1700	1156	2.09	1258	2.57	1356	3.06	1453	3.65	1547	4.25	1638	4.90	1723	5.58	1805	6.20	1883	6.93	1959	7.67
5094	1800	1175	2.25	1274	2.74	1369	3.25	1462	3.82	1552	4.44	1642	5.12	1726	5.77	1808	6.42	1885	7.22	1961	7.95
5377	1900	1196	2.41	1292	2.94	1384	3.45	1473	4.02	1560	4.61	1646	5.29	1730	5.97	1812	6.65	1888	7.44	1963	8.21
5660	2000	1218	2.60	1311	3.11	1400	3.68	1487	4.27	1571	4.81	1653	5.49	1734	6.17	1816	6.85	1892	7.64	1966	8.43
5943	2100	1242	2.78	1332	3.31	1419	3.91	1503	4.47	1584	5.09	1663	5.72	1741	6.37	1820	7.13	1896	7.87		
6226	2200	1267	2.97	1353	3.54	1438	4.13	1520	4.73	1599	5.35	1676	5.97	1750	6.65	1827	7.36	1900	8.12		
6509	2300	1293	3.17	1377	3.76	1459	4.36	1538	5.01	1615	5.63	1691	6.25	1764	6.93	1836	7.61	1908	8.41		
6792	2400	1322	3.40	1402	4.02	1480	4.62	1558	5.26	1633	5.91	1707	6.59	1779	7.24	1848	7.98	1918	8.69		
7075	2500	1352	3.68	1427	4.27	1503	4.90	1579	5 55	1652	6.20	1724	6.91	1795	7.58	1863	8.32	1930	9.03		
7358	2600	1383	3.91	1454	4.53	1528	5.21	1601	5.86	1672	6.57	1743	7.22	1811	7.95	1878	8.66	1944	9.42		
7924	2800	1444	4.44	1513	5.12	1579	5.80	1648	6.51	1716	7.22	1783	7.98	1848	8.72	1913	9.48	1976	10.22		
8490	3000	1510	5.12	1573	5.77	1636	6.51	1699	7.22	1762	8.01	1827	8.74	1889	9.54	1949	10.30	2012	11.12		
9056	3200	1577	5.80	1637	6.54	1698	7.24	1755	8.04	1815	8.77	1875	9.59	1935	10.39	1993	11.24	2052	12.08		
9622	3400	1645	6.57	1704	7.30	1760	8.09	1815	8.52	1871	9.68	1926	10.78	1983	11.38	2038	12.23	2095	13.10		
10188	3600	1714	7.39	1771	8.21	1824	8.97	1877	9.82	1932	10.64	1982	11.52	2035	12.42	2088	13.30				
10754	3800	1786	8.32	1838	9.17	1891	10.02	1941	10.87	1992	11.72	2042	12.62	2091	13.53	2141	14.46				
11320	4000	1862	9.28	1907	10.22	1959	11.12	2007	11.97	2055	12.88	2103	13.81	2152	14.72	2197	15.71				

All Capacities Based on Standard Air (Density .075#/cu.ft.—70° F.—29.92" Hg. Bar.)

NOTES: (1) Ball bearings are standard on all Type NH, Class II-A Fans. (2) Values underlined indicate the most efficient point of operation for each pressure. (3) When equipped with Vortex Control increase speed 1%.

SIZE 49
SINGLE WIDTH
SINGLE INLET

CLARAGE TYPE NH FANS

NON-OVERLOADING MEDIUM SPEED HIGH EFFICIENCY

CLASS II-A
MAX. RPM
2027

Outlet Size 19¾" x 25¹¹⁄₁₆" Outside **Wheel Diameter 24½ in.**

Inlet Size 29" Dia. Outside **Outlet Area 3.45 Sq. Ft. Inside**

Tip Speed = RPM × 6.41 **Max. BHP = 2.44 $\left(\frac{RPM}{1000}\right)^3$**

Volume of Air CFM	Outlet Velocity Feet per Minute	¼" SP		⅜" SP		½" SP		⅝" SP		¾" SP		⅞" SP		1" SP		1¼" SP		1½" SP		1¾" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
2760	800	409	.17	462	.22	512	.29	560	.36	606	.43	652	.52	695	.61	775	.80	847	1.00	914	1.21
3105	900	435	.20	482	.27	529	.33	574	.41	616	.49	658	.57	699	.66	777	.86	849	1.08	916	1.30
3450	1000	463	.24	505	.31	548	.39	590	.47	630	.55	669	.63	707	.72	781	.92	852	1.14	918	1.38
3795	1100	492	.29	532	.37	570	.45	609	.53	647	.62	684	.71	720	.80	789	.99	856	1.21	920	1.46
4140	1200	523	.35	559	.42	595	.51	631	.60	667	.69	701	.79	735	.88	801	1.08	863	1.30	925	1.54
4485	1300	555	.41	589	.50	622	.58	655	.68	688	.78	721	.88	754	.98	815	1.19	875	1.41	933	1.64
4830	1400	588	.48	619	.57	650	.67	681	.76	711	.87	742	.97	774	1.08	832	1.30	890	1.53	945	1.77
5175	1500	621	.56	650	.66	680	.76	708	.86	737	.97	765	1.08	794	1.19	851	1.42	906	1.66	959	1.91
5520	1600	655	.66	682	.76	710	.87	737	.98	764	1.08	790	1.20	817	1.31	871	1.56	924	1.81	975	2.06
5865	1700	689	.76	715	.87	740	.98	767	1.09	792	1.21	817	1.32	842	1.45	893	1.70	943	1.96	993	2.23
6210	1800	724	.88	749	.98	772	1.10	797	1.22	821	1.34	845	1.47	869	1.59	916	1.85	965	2.13	1012	2.40
6555	1900	760	1.00	783	1.12	804	1.24	828	1.37	851	1.50	874	1.62	897	1.75	941	2.02	987	2.30	1032	2.59
6900	2000			817	1.26	838	1.39	859	1.53	881	1.66	904	1.79	925	1.93	968	2.20	1011	2.49	1054	2.79
7245	2100			851	1.43	872	1.56	891	1.70	912	1.84	934	1.97	955	2.11	996	2.40	1036	2.69	1077	3.00
7590	2200			885	1.61	906	1.73	925	1.88	943	2.03	964	2.17	985	2.32	1024	2.61	1063	2.92	1102	3.23
7935	2300					940	1.93	959	2.07	976	2.23	995	2.38	1015	2.54	1053	2.84	1091	3.15	1128	3.48
8280	2400					974	2.14	993	2.29	1009	2.45	1026	2.61	1046	2.77	1083	3.08	1119	3.39	1155	3.76
8625	2500					1008	2.37	1027	2.52	1043	2.68	1059	2.85	1077	3.02	1113	3.35	1148	3.69	1183	4.04
8970	2600							1061	2.77	1077	2.93	1093	3.12	1109	3.28	1144	3.62	1177	3.97	1211	4.31
9660	2800							1128	3.33	1144	3.48	1158	3.69	1176	3.86	1205	4.21	1238	4.59	1270	4.97
10350	3000							1200	3.97	1212	4.14	1226	4.31	1243	4.49	1270	4.90	1300	5.31	1330	5.69
11040	3200									1283	4.86	1295	5.07	1310	5.24	1337	5.66	1363	6.11	1391	6.52
11730	3400									1355	5.66	1366	5.90	1378	6.10	1404	6.52	1430	6.93	1454	7.38
12420	3600									1428	6.42	1438	6.80	1447	7.04	1472	7.42	1499	7.87	1520	8.35

Volume of Air CFM	Outlet Velocity ft per M	2" SP		2½" SP		3" SP		3½" SP		4" SP		4½" SP		5" SP		5½" SP		6" SP		6½" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
3450	1000	980	1.62	1093	2.12																
3795	1100	982	1.71	1095	2.24																
4140	1200	985	1.80	1097	2.36																
4485	1300	990	1.90	1100	2.47	1201	3.08	1295	3.69	1383	4.49										
4830	1400	999	2.02	1104	2.59	1204	3.22	1297	3.86	1385	4.55										
5175	1500	1011	2.17	1110	2.72	1207	3.35	1300	4.04	1387	4.73										
5520	1600	1025	2.33	1120	2.88	1213	3.48	1304	4.17	1390	4.90	1472	5.66	1549	6.42	1623	7.21	1694	8.00	1762	8.83
5865	1700	1041	2.50	1133	3.07	1221	3.66	1308	4.35	1393	5.07	1474	5.87	1551	6.66	1625	7.42	1696	8.28	1764	9.18
6210	1800	1058	2.69	1147	3.28	1233	3.90	1316	4.55	1398	5.31	1477	6.11	1554	6.90	1627	7.69	1698	8.63	1766	9.49
6555	1900	1077	2.88	1163	3.52	1246	4.14	1326	4.80	1405	5.52	1482	6.31	1557	7.14	1631	7.94	1700	8.90	1768	9.80
6900	2000	1097	3.11	1180	3.73	1261	4.38	1339	5.07	1414	5.76	1489	6.56	1562	7.38	1634	8.18	1703	9.14	1770	10.07
7245	2100	1118	3.32	1199	3.97	1277	4.66	1353	5.35	1426	6.07	1498	6.83	1569	7.62	1639	8.52	1707	9.42		
7590	2200	1141	3.55	1219	4.24	1294	4.93	1368	5.66	1440	6.38	1509	7.14	1578	7.94	1645	8.80	1711	9.69		
7935	2300	1165	3.80	1240	4.49	1313	5.21	1385	5.97	1455	6.73	1523	7.49	1588	8.28	1654	9.11	1718	10.04		
8280	2400	1190	4.07	1262	4.80	1333	5.52	1403	6.28	1471	7.07	1537	7.87	1602	8.66	1664	9.52	1727	10.38		
8625	2500	1217	4.38	1285	5.11	1354	5.87	1422	6.62	1488	7.42	1553	8.25	1616	9.07	1678	9.94	1738	10.80		
8970	2600	1245	4.66	1309	5.42	1376	6.21	1441	7.00	1507	7.83	1569	8.63	1631	9.49	1692	10.35	1751	11.25		
9660	2800	1300	5.31	1362	6.11	1422	6.93	1484	7.76	1545	8.62	1605	9.52	1664	10.42	1722	11.32	1779	12.21		
10350	3000	1359	6.11	1417	6.90	1473	7.76	1530	8.63	1588	9.56	1645	10.45	1701	11.39	1757	12.32	1812	13.28		
11040	3200	1420	6.93	1474	7.80	1528	8.66	1580	9.59	1634	10.49	1689	11.45	1742	12.42	1795	13.42	1848	14.46		
11730	3400	1481	7.83	1534	8.73	1584	9.66	1634	10.59	1684	11.55	1735	12.56	1786	13.59	1835	14.63	1887	15.66		
12420	3600	1543	8.83	1594	9.80	1642	10.73	1690	11.73	1738	12.73	1785	13.77	1832	14.84	1880	15.90				
13110	3800	1608	9.94	1654	10.97	1703	11.97	1748	12.95	1794	14.01	1840	15.08	1883	16.18	1928	17.28				
13800	4000	1677	11.11	1717	12.21	1764	13.28	1807	14.32	1850	15.39	1895	16.49	1938	17.60	1979	18.77				

All Capacities Based on Standard Air (Density .075#/cu.ft.—70° F.—29.92" Hg. Bar.)

NOTES: (1) Ball bearings are standard on all Type NH, Class II-A Fans. (2) Values underlined indicate the most efficient point of operation for each pressure. (3) When equipped with Vortex Control increase speed 1%.

CLASS II-A
MAX. RPM
1840

CLARAGE TYPE NH FANS

NON-OVERLOADING MEDIUM SPEED HIGH EFFICIENCY

Outlet Size 21¾" x 28⁵⁄₁₆" Outside **Wheel Diameter 27 in.**

Inlet Size 32" Dia. Outside **Outlet Area 4.20 Sq. Ft. Inside**

Tip Speed = RPM × 7.07 **Max. BHP = 3.96 $\left(\frac{RPM}{1000}\right)^3$**

SIZE 54
SINGLE WIDTH
SINGLE INLET

Volume of Air CFM	Outlet Velocity Feet per Minute	¼" SP		⅜" SP		½" SP		⅝" SP		¾" SP		⅞" SP		1" SP		1¼" SP		1½" SP		1¾" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
3360	800	370	.20	419	.27	464	.35	508	.44	550	.53	591	.63	630	.75	702	.98	768	1.22	829	1.47
3780	900	394	.24	437	.32	479	.41	520	.50	559	.59	597	.69	634	.81	705	1.05	770	1.31	830	1.58
4200	1000	419	.29	458	.38	497	.47	535	.57	572	.67	607	.77	641	.88	708	1.12	772	1.39	832	1.68
4620	1100	446	.35	482	.45	517	.54	552	.65	587	.75	620	.86	653	.97	715	1.21	776	1.47	834	1.77
5040	1200	474	.42	507	.52	539	.62	572	.73	604	.84	636	.96	667	1.08	726	1.32	783	1.58	839	1.87
5460	1300	503	.50	534	.60	564	.71	593	.82	624	.95	654	1.07	683	1.19	739	1.45	794	1.71	846	2.00
5880	1400	533	.59	561	.70	590	.81	617	.93	645	1.05	673	1.18	700	1.31	755	1.58	806	1.86	857	2.15
6300	1500	563	.68	589	.81	616	.93	642	1.05	668	1.18	693	1.31	720	1.45	771	1.73	821	2.02	869	2.33
6720	1600	594	.80	618	.93	643	1.05	668	1.19	693	1.32	716	1.46	741	1.60	790	1.89	838	2.20	884	2.51
7140	1700	625	.93	648	1.05	671	1.19	695	1.33	718	1.47	741	1.61	764	1.76	810	2.07	855	2.39	900	2.71
7560	1800	656	1.07	678	1.20	700	1.34	722	1.49	745	1.63	766	1.79	788	1.94	831	2.26	875	2.59	917	2.93
7980	1900	689	1.22	709	1.36	729	1.51	750	1.67	772	1.82	792	1.97	813	2.13	854	2.46	895	2.80	936	3.15
8400	2000			740	1.54	759	1.69	778	1.86	799	2.02	819	2.18	839	2.34	878	2.68	916	3.03	955	3.40
8820	2100			771	1.74	790	1.89	808	2.07	827	2.24	846	2.40	866	2.57	903	2.92	940	3.28	976	3.65
9240	2200			802	1.96	820	2.11	838	2.28	855	2.47	874	2.64	893	2.82	928	3.18	964	3.55	999	3.94
9660	2300					851	2.34	868	2.52	885	2.71	902	2.90	920	3.09	955	3.45	989	3.83	1023	4.24
10080	2400					882	2.60	899	2.78	915	2.98	931	3.18	948	3.37	982	3.75	1015	4.12	1047	4.58
10500	2500					913	2.89	930	3.07	946	3.26	960	3.47	976	3.67	1009	4.07	1041	4.49	1072	4.91
10920	2600							961	3.37	977	3.56	991	3.79	1005	3.99	1037	4.41	1067	4.83	1098	5.25
11760	2800							1022	4.05	1037	4.24	1050	4.49	1066	4.70	1092	5.12	1122	5.59	1151	6.05
12600	3000							1088	4.83	1099	5.04	1112	5.25	1128	5.46	1152	5.96	1178	6.47	1206	6.93
13440	3200									1163	5.92	1174	6.17	1191	6.38	1212	6.89	1236	7.43	1261	7.94
14280	3400									1228	6.89	1239	7.18	1255	7.43	1273	7.94	1297	8.44	1318	8.99
15120	3600									1293	7.81	1304	8.27	1321	8.57	1334	9.03	1359	9.58	1378	10.16

Volume of Air CFM	Outlet Velocity ft per M	2" SP		2½" SP		3" SP		3½" SP		4" SP		4½" SP		5" SP		5½" SP		6" SP		6½" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
4200	1000	888	1.97	991	2.58																
4620	1100	890	2.08	992	2.72																
5040	1200	893	2.20	994	2.87																
5460	1300	898	2.31	997	3.00	1089	3.75	1174	4.49	1254	5.46										
5880	1400	905	2.46	1000	3.15	1091	3.91	1176	4.70	1255	5.54										
6300	1500	916	2.64	1006	3.31	1094	4.08	1178	4.91	1257	5.73										
6720	1600	929	2.83	1015	3.51	1099	4.24	1182	5.08	1260	5.96	1334	6.89	1404	7.81	1471	8.78	1536	9.74	1598	10.75
7140	1700	943	3.05	1027	3.74	1107	4.45	1186	5.29	1263	6.17	1336	7.14	1406	8.11	1473	9.03	1537	10.08	1599	11.17
7560	1800	959	3.27	1040	3.99	1117	4.75	1193	5.54	1267	6.47	1339	7.43	1409	8.40	1476	9.37	1539	10.50	1600	11.55
7980	1900	976	3.51	1054	4.28	1130	5.04	1202	5.84	1273	6.72	1344	7.69	1412	8.69	1479	9.66	1541	10.84	1602	11.93
8400	2000	994	3.78	1070	4.54	1143	5.33	1214	6.17	1282	7.01	1349	7.98	1416	8.99	1482	9.95	1544	11.13	1605	12.26
8820	2100	1014	4.04	1087	4.83	1158	5.67	1227	6.51	1293	7.39	1358	8.32	1422	9.28	1485	10.37	1547	11.47		
9240	2200	1034	4.33	1105	5.17	1173	6.01	1240	6.89	1305	7.77	1368	8.69	1430	9.66	1491	10.71	1551	11.80		
9660	2300	1056	4.62	1124	5.46	1190	6.34	1255	7.27	1318	8.19	1380	9.11	1440	10.08	1499	11.09	1557	12.22		
10080	2400	1079	4.96	1144	5.84	1208	6.72	1271	7.64	1333	8.61	1393	9.58	1452	10.54	1509	11.59	1565	12.64		
10500	2500	1104	5.33	1164	6.22	1227	7.14	1289	8.06	1349	9.03	1407	10.04	1465	11.05	1521	12.10	1575	13.15		
10920	2600	1129	5.67	1187	6.59	1247	7.56	1307	8.53	1366	9.53	1422	10.50	1478	11.55	1533	12.60	1587	13.69		
11760	2800	1179	6.47	1235	7.43	1289	8.44	1345	9.45	1401	10.50	1455	11.59	1509	12.68	1561	13.78	1613	14.87		
12600	3000	1233	7.43	1284	8.40	1336	9.45	1387	10.50	1440	11.63	1491	12.73	1542	13.86	1593	14.99	1642	16.17		
13440	3200	1287	8.44	1336	9.49	1386	10.54	1433	11.68	1481	12.77	1531	13.94	1579	15.12	1627	16.34	1675	17.60		
14280	3400	1343	9.53	1390	10.63	1436	11.76	1480	12.89	1527	14.07	1572	15.29	1619	16.55	1663	17.81	1710	19.07		
15120	3600	1399	10.75	1445	11.93	1489	13.06	1532	14.28	1576	15.50	1618	16.76	1661	18.06	1704	19.36				
15960	3800	1458	12.10	1500	13.36	1543	14.57	1584	15.79	1626	17.05	1668	18.35	1707	19.70	1747	21.04				
16800	4000	1520	13.52	1557	14.87	1599	16.17	1638	17.43	1677	18.73	1717	20.08	1756	21.42	1794	22.85				

All Capacities Based on Standard Air (Density .075#/cu.ft.—70° F.—29.92" Hg. Bar.)

NOTES: (1) Ball bearings are standard on all Type NH, Class II-A Fans. (2) Values underlined indicate the most efficient point of operation for each pressure. (3) When equipped with Vortex Control increase speed 1%.

SIZE 60
SINGLE WIDTH
SINGLE INLET

CLARAGE TYPE NH FANS

NON-OVERLOADING MEDIUM SPEED HIGH EFFICIENCY

CLASS II-A
MAX. RPM
1655

Outlet Size 24" x 31 7/16" Outside — **Wheel Diameter 30 in.**

Inlet Size 35" Dia. Outside — **Outlet Area 5.15 Sq. Ft. Inside**

Tip Speed = RPM × 7.85 — **Max. BHP = 6.71 $\left(\frac{RPM}{1000}\right)^3$**

Volume of Air CFM	Outlet Velocity Feet per Minute	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	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
4120	800	334	.25	377	.33	418	.43	457	.54	495	.65	532	.78	567	.92	632	1.20	692	1.49	747	1.81
4635	900	355	.30	394	.40	432	.50	468	.61	503	.73	537	.85	571	.99	635	1.29	693	1.61	748	1.94
5150	1000	378	.36	413	.46	448	.58	482	.70	515	.82	547	.95	577	1.08	638	1.38	695	1.70	749	2.05
5665	1100	402	.43	434	.55	466	.66	498	.79	528	.92	559	1.06	588	1.19	644	1.48	699	1.81	752	2.17
6180	1200	427	.52	457	.63	486	.76	515	.90	544	1.03	573	1.17	601	1.32	654	1.62	705	1.94	755	2.30
6695	1300	453	.61	481	.74	508	.87	535	1.01	562	1.16	589	1.31	615	1.46	666	1.78	715	2.10	762	2.45
7210	1400	480	.72	506	.85	531	.99	556	1.14	581	1.29	606	1.45	631	1.61	680	1.94	726	2.28	771	2.64
7725	1500	507	.84	531	.99	555	1.14	578	1.29	602	1.45	625	1.61	649	1.78	695	2.12	740	2.48	783	2.85
8240	1600	535	.98	557	1.14	580	1.29	602	1.46	624	1.62	645	1.79	667	1.96	711	2.32	754	2.70	796	3.08
8755	1700	563	1.14	584	1.29	605	1.46	626	1.63	647	1.80	667	1.98	688	2.16	729	2.53	770	2.93	811	3.32
9270	1800	591	1.31	611	1.47	630	1.65	651	1.83	671	2.00	690	2.19	710	2.37	748	2.77	788	3.17	826	3.59
9785	1900	621	1.50	638	1.67	657	1.85	676	2.05	695	2.24	714	2.42	732	2.62	769	3.02	806	3.44	843	3.87
10300	2000			666	1.88	684	2.08	701	2.28	720	2.48	738	2.67	755	2.87	791	3.29	825	3.72	861	4.17
10815	2100			694	2.13	711	2.32	728	2.53	745	2.75	763	2.95	779	3.15	813	3.58	846	4.02	879	4.48
11330	2200			722	2.40	739	2.59	755	2.80	770	3.02	788	3.24	804	3.46	836	3.89	868	4.35	900	4.83
11845	2300					767	2.87	782	3.10	797	3.33	813	3.55	829	3.79	860	4.23	891	4.70	922	5.20
12360	2400					795	3.19	810	3.41	824	3.65	838	3.90	854	4.13	884	4.60	914	5.06	944	5.61
12875	2500					823	3.54	838	3.76	857	4.00	865	4.25	879	4.50	909	5.00	937	5.51	966	6.03
13390	2600							866	4.13	885	4.37	893	4.65	906	4.89	934	5.41	961	5.92	989	6.44
14420	2800							921	4.97	934	5.20	945	5.51	960	5.77	984	6.28	1010	6.85	1037	7.42
15450	3000							980	5.92	990	6.18	1001	6.44	1014	6.70	1037	7.31	1061	7.93	1086	8.50
16480	3200									1048	7.26	1058	7.57	1069	7.83	1092	8.45	1113	9.12	1136	9.73
17510	3400									1106	8.45	1116	8.81	1125	9.12	1145	9.73	1168	10.35	1187	11.02
18540	3600									1164	9.58	1174	10.15	1182	10.51	1202	11.07	1224	11.74	1241	12.46

Volume of Air CFM	Outlet Velocity ft per M	2" SP		2 1/2" SP		3" SP		3 1/2" SP		4" SP		4 1/2" SP		5" SP		5 1/2" SP		6" SP		6 1/2" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
5150	1000	800	2.42	893	3.17																
5665	1100	802	2.55	894	3.34																
6180	1200	804	2.69	896	3.52																
6695	1300	808	2.84	898	3.68	981	4.60	1058	5.51	1130	6.70										
7210	1400	815	3.01	901	3.86	983	4.80	1060	5.77	1131	6 80										
7725	1500	825	3.23	907	4.06	986	5.01	1062	6.03	1133	7.06										
8240	1600	837	3.47	915	4.30	991	5.20	1065	6.23	1135	7.31	1202	8.45	1265	9.58	1326	10.76	1384	11.95	1439	13.18
8755	1700	850	3.73	925	4.59	998	5.46	1069	6.49	1138	7.57	1204	8.76	1267	9.94	1327	11.07	1385	12.36	1440	13.70
9270	1800	864	4.01	937	4.89	1007	5.82	1075	6.80	1141	7.93	1207	9.12	1269	10.30	1329	11.48	1387	12.88	1442	14.16
9785	1900	879	4.31	950	5.25	1018	6.18	1083	7.14	1147	8.24	1211	9.42	1272	10.66	1332	11.85	1389	13.29	1444	14.63
10300	2000	896	4.64	964	5.56	1030	6.54	1094	7.57	1155	8.60	1216	9.79	1275	11.02	1335	12.21	1391	13.65	1446	15.04
10815	2100	913	4.95	979	5.92	1043	6.95	1105	7.98	1165	9.06	1223	10.20	1281	11.38	1338	12.72	1394	14.06		
11330	2200	932	5.30	995	6.33	1057	7.36	1118	8.45	1176	9.53	1232	10.66	1288	11.85	1343	13.13	1398	14.47		
11845	2300	951	5.67	1012	6.70	1073	7.78	1131	8.91	1188	10.04	1243	11.18	1297	12.36	1350	13.60	1403	14.99		
12360	2400	972	6.08	1030	7.16	1089	8.24	1146	9.37	1201	10.56	1255	11.74	1308	12.93	1359	14.21	1410	15.50		
12875	2500	994	6.54	1049	7.62	1106	8.76	1161	9.88	1215	11.07	1268	12.31	1320	13.54	1370	14.83	1419	16.12		
13390	2600	1016	6.95	1069	8.60	1124	9.27	1178	10.45	1231	11.69	1282	12.88	1332	14.16	1381	15.45	1430	16.79		
14420	2800	1062	7.93	1112	9.12	1161	10.35	1211	11.59	1262	12.88	1311	14.21	1359	15.55	1406	16.89	1453	18.23		
15450	3000	1110	9.12	1157	10.30	1203	11.59	1249	12.88	1296	14.27	1344	15.60	1389	17.00	1435	18.38	1480	19.83		
16480	3200	1159	10.35	1204	11.64	1247	12.93	1290	14.32	1335	15.66	1379	17.10	1423	18.54	1466	20.03	1509	21.58		
17510	3400	1209	11.69	1253	13.03	1293	14.42	1335	15.81	1376	17.25	1417	18.75	1458	20.29	1498	21.84	1541	23.38		
18540	3600	1260	13.18	1302	14.63	1341	16.02	1380	17.51	1421	19.00	1458	20.55	1496	22.15	1536	23.74				
19570	3800	1314	14.83	1352	16.37	1390	17.87	1427	19.36	1465	20.91	1502	22.51	1538	24.15	1574	25.80				
20600	4000	1369	16.58	1403	18.23	1441	19.83	1476	21.37	1511	22.97	1547	24.62	1583	26.27	1616	28.02				

All Capacities Based on Standard Air (Density .075#/cu.ft.—70° F.—29.92" Hg. Bar.)

NOTES: (1) Ball bearings are standard on all Type NH, Class II-A Fans. (2) Values underlined indicate the most efficient point of operation for each pressure. (3) When equipped with Vortex Control increase speed 1%.

CLASS II-A
MAX. RPM
1505

CLARAGE TYPE NH FANS

NON-OVERLOADING MEDIUM SPEED HIGH EFFICIENCY

Outlet Size 26½" x 34⅞6" Outside **Wheel Diameter 33 in.**

Inlet Size 38" Dia. Outside **Outlet Area 6.27 Sq. Ft. Inside**

Tip Speed = RPM × 8.64 **Max. BHP = 10.80 $\left(\frac{RPM}{1000}\right)^3$**

SIZE 66
SINGLE WIDTH
SINGLE INLET

Volume of Air CFM	Outlet Velocity Feet per Minute	¼" SP		⅜" SP		½" SP		⅝" SP		¾" SP		⅞" SP		1" SP		1¼" SP		1½" SP		1¾" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
5016	800	303	.30	343	.41	380	.53	415	.65	450	.79	483	.95	515	1.12	574	1.46	628	1.82	678	2.20
5643	900	323	.36	358	.48	392	.61	425	.75	457	.88	488	1.03	518	1.20	576	1.57	630	1.96	679	2.36
6270	1000	343	.43	375	.56	407	.71	438	.85	468	1.00	496	1.15	524	1.31	579	1.67	632	2.08	681	2.50
6897	1100	365	.53	394	.66	423	.81	452	.97	480	1.12	507	1.29	534	1.45	585	1.80	635	2.20	683	2.65
7524	1200	388	.63	415	.77	441	.93	468	1.09	494	1.25	520	1.43	545	1.61	594	1.97	640	2.36	686	2.80
8151	1300	411	.75	437	.90	461	1.06	485	1.23	510	1.41	535	1.59	559	1.78	605	2.16	649	2.56	692	2.98
8778	1400	436	.88	459	1.04	482	1.21	505	1.39	527	1.57	550	1.76	573	1.96	617	2.36	660	2.78	701	3.21
9405	1500	461	1.02	482	1.20	504	1.39	525	1.57	546	1.76	567	1.96	589	2.17	631	2.58	672	3.02	711	3.47
10032	1600	486	1.19	506	1.39	527	1.57	547	1.77	566	1.97	586	2.18	606	2.38	646	2.83	685	3.29	723	3.75
10659	1700	511	1.39	530	1.57	550	1.78	569	1.98	587	2.19	606	2.41	625	2.63	662	3.08	700	3.56	736	4.04
11286	1800	537	1.60	555	1.79	572	2.01	591	2.23	609	2.44	627	2.66	645	2.89	680	3.37	715	3.86	750	4.37
11913	1900	564	1.82	580	2.03	596	2.26	614	2.50	631	2.72	648	2.95	665	3.19	698	3.67	732	4.18	765	4.71
12540	2000			605	2.29	621	2.53	637	2.78	654	3.02	670	3.25	686	3.50	718	4.00	750	4.53	782	5.07
13167	2100			630	2.60	646	2.83	661	3.08	677	3.35	692	3.59	708	3.84	738	4.36	769	4.90	799	5.45
13794	2200			656	2.92	671	3.15	686	3.41	700	3.68	715	3.94	730	4.21	759	4.74	789	5.30	817	5.87
14421	2300					696	3.50	711	3.77	724	4.05	738	4.33	753	4.61	781	5.15	809	5.72	837	6.33
15048	2400					721	3.89	736	4.16	749	4.45	761	4.75	776	5.03	804	5.60	830	6.16	857	6.83
15675	2500					746	4.31	761	4.58	774	4.87	786	5.17	799	5.48	827	6.08	851	6.71	877	7.34
16302	2600							786	5.03	799	5.32	811	5.66	822	5.96	850	6.58	873	7.21	898	7.84
17556	2800							836	6.05	848	6.33	860	6.71	872	7.02	894	7.65	919	8.34	942	9.03
18810	3000							890	7.21	899	7.52	909	7.84	922	8.15	942	8.90	964	9.66	987	10.35
20064	3200									952	8.84	961	9.22	972	9.53	992	10.28	1011	11.10	1032	11.85
21318	3400									1005	10.28	1014	10.72	1022	11.10	1042	11.85	1061	12.60	1078	13.42
22572	3600									1058	11.66	1067	12.35	1073	12.79	1092	13.44	1111	14.30	1127	15.17

Volume of Air CFM	Outlet Velocity ft per M	2" SP		2½" SP		3" SP		3½" SP		4" SP		4½" SP		5" SP		5½" SP		6" SP		6½" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
6270	1000	727	2.94	811	3.86																
6897	1100	728	3.10	812	4.06																
7524	1200	731	3.28	814	4.29																
8151	1300	735	3.45	816	4.48	891	5.61	961	6.71	1026	8.15										
8778	1400	741	3.67	819	4.70	893	5.84	962	7.02	1027	8.28										
9405	1500	750	3.94	823	4.95	896	6.09	964	7.34	1029	8.59										
10032	1600	760	4.23	831	5.24	900	6.33	967	7.59	1031	8.90	1091	10.28	1149	11.66	1204	13.10	1257	14.55	1307	16.05
10659	1700	772	4.55	840	5.59	906	6.65	970	7.90	1033	9.22	1093	10.66	1151	12.10	1205	13.48	1258	15.05	1308	16.68
11286	1800	785	4.88	851	5.96	914	7.09	976	8.28	1037	9.66	1096	11.10	1153	12.54	1207	13.98	1259	15.68	1309	17.24
11913	1900	799	5.24	863	6.40	924	7.52	984	8.72	1042	10.03	1099	11.47	1155	12.98	1210	14.42	1261	16.18	1311	17.81
12540	2000	813	5.64	876	6.77	935	7.96	993	9.22	1049	10.47	1104	11.91	1158	13.42	1213	14.86	1263	16.62	1313	18.31
13167	2100	829	6.03	889	7.21	947	8.46	1004	9.72	1058	11.04	1111	12.41	1164	13.86	1216	15.49	1266	17.12		
13794	2200	846	6.46	904	7.71	960	8.97	1015	10.28	1068	11.60	1119	12.98	1170	14.42	1220	15.99	1269	17.62		
14421	2300	864	6.90	919	8.15	974	9.47	1027	10.85	1079	12.23	1129	13.61	1178	15.04	1227	16.55	1274	18.25		
15048	2400	883	7.40	936	8.72	989	10.03	1040	11.41	1091	12.85	1140	14.30	1188	15.74	1234	17.31	1281	18.87		
15675	2500	903	7.96	953	9.28	1004	10.66	1054	12.04	1104	13.48	1151	14.99	1198	16.49	1244	18.06	1289	19.63		
16302	2600	924	8.46	971	9.84	1020	11.29	1069	12.73	1118	14.23	1164	15.68	1210	17.24	1255	18.81	1298	20.44		
17556	2800	964	9.66	1010	11.10	1054	12.60	1100	14.11	1146	15.68	1191	17.31	1234	18.94	1277	20.57	1320	22.20		
18810	3000	1007	11.10	1051	12.54	1093	14.11	1135	15.68	1178	17.37	1220	19.00	1262	20.69	1303	22.38	1344	24.14		
20064	3200	1052	12.60	1093	14.17	1134	15.74	1172	17.43	1212	19.06	1252	20.82	1292	22.57	1331	24.39	1370	26.27		
21318	3400	1098	14.23	1138	15.86	1175	17.56	1212	19.25	1249	21.00	1287	22.82	1325	24.70	1361	26.58	1399	28.47		
22572	3600	1145	16.05	1183	17.81	1218	19.50	1253	21.32	1289	23.14	1324	25.02	1359	26.96	1395	28.90				
23826	3800	1193	18.06	1228	19.94	1263	21.76	1296	23.58	1330	25.46	1364	27.40	1397	29.41	1430	31.41				
25080	4000	1244	20.19	1274	22.20	1308	24.14	1340	26.02	1372	27.96	1405	29.97	1437	31.92	1468	34.11				

All Capacities Based on Standard Air (Density .075#/cu.ft.—70° F.—29.92" Hg. Bar.)

NOTES: (1) Ball bearings are standard on all Type NH, Class II-A Fans. (2) Values underlined indicate the most efficient point of operation for each pressure. (3) When equipped with Vortex Control increase speed 1%.

SIZE 73
SINGLE WIDTH
SINGLE INLET

CLARAGE TYPE NH FANS

NON-OVERLOADING MEDIUM SPEED HIGH EFFICIENCY

CLASS II-A
MAX. RPM
1360

Outlet Size 29¼" x 38³⁄₁₆" Outside **Wheel Diameter 36½ in.**

Inlet Size 42" Dia. Outside **Outlet Area 7.65 Sq. Ft. Inside**

Tip Speed = RPM × 9.56 **Max. BHP = 18.70 $\left(\frac{RPM}{1000}\right)^3$**

Volume of Air CFM	Outlet Velocity Feet per Minute	¼" SP		⅜" SP		½" SP		⅝" SP		¾" SP		⅞" SP		1" SP		1¼" SP		1½" SP		1¾" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
6120	800	269	.36	304	.50	337	.64	369	.80	399	.97	429	1.16	458	1.36	511	1.78	559	2.23	604	2.68
6885	900	286	.44	317	.58	348	.74	377	.90	406	1.07	433	1.25	460	1.46	512	1.90	560	2.38	604	2.87
7650	1000	304	.53	332	.68	360	.86	388	1.03	414	1.21	440	1.39	465	1.59	514	2.03	561	2.52	605	3.04
8415	1100	324	.63	350	.80	375	.98	401	1.16	425	1.35	450	1.55	474	1.76	519	2.19	564	2.68	607	3.22
9180	1200	344	.75	368	.93	391	1.12	415	1.32	438	1.52	461	1.73	483	1.95	527	2.39	568	2.86	609	3.40
9945	1300	365	.89	387	1.08	409	1.28	430	1.48	452	1.70	474	1.92	495	2.15	536	2.62	576	3.11	614	3.62
10710	1400	387	1.04	407	1.25	427	1.45	448	1.68	467	1.90	488	2.13	508	2.37	547	2.87	585	3.37	622	3.90
11475	1500	409	1.22	427	1.44	447	1.66	466	1.88	484	2.12	503	2.36	522	2.62	559	3.13	596	3.66	631	4.22
12240	1600	431	1.42	448	1.65	467	1.89	484	2.13	502	2.36	519	2.62	537	2.88	573	3.42	607	3.98	641	4.55
13005	1700	453	1.64	470	1.88	487	2.13	504	2.39	521	2.63	537	2.90	554	3.17	587	3.73	620	4.31	653	4.90
13770	1800	476	1.90	492	2.13	507	2.40	524	2.66	540	2.93	555	3.21	572	3.48	602	4.06	634	4.67	665	5.29
14535	1900	500	2.16	514	2.42	529	2.70	544	2.98	560	3.26	574	3.54	590	3.83	619	4.42	649	5.05	678	5.69
15300	2000			536	2.73	551	3.01	565	3.32	580	3.61	594	3.90	608	4.20	637	4.81	664	5.46	693	6.13
16065	2100			559	3.08	573	3.37	586	3.68	600	3.99	614	4.30	627	4.61	655	5.24	681	5.90	708	6.59
16830	2200			582	3.47	595	3.75	608	4.07	620	4.40	634	4.72	647	5.05	673	5.69	699	6.37	724	7.08
17595	2300					617	4.16	630	4.49	642	4.83	654	5.17	667	5.52	692	6.19	717	6.88	741	7.60
18360	2400					640	4.62	652	4.95	664	5.30	675	5.67	688	6.01	712	6.72	736	7.40	758	8.19
19125	2500					663	5.12	674	5.45	686	5.80	696	6.17	709	6.55	732	7.28	755	8.03	777	8.80
19890	2600							697	5.97	708	6.33	719	6.75	730	7.11	752	7.88	774	8.64	796	9.41
21420	2800							741	7.18	752	7.54	762	7.96	773	8.34	792	9.18	814	10.02	835	10.86
22950	3000							789	8.57	797	8.95	806	9.33	817	9.72	835	10.63	854	11.55	874	12.39
24480	3200									843	10.48	851	10.94	861	11.32	879	12.24	896	13.23	915	14.15
26010	3400									890	12.16	898	12.70	906	13.16	924	14.08	940	15.07	956	16.07
27540	3600									937	13.85	945	14.61	951	15.15	969	16.07	985	17.06	999	18.13

Volume of Air CFM	Outlet Velocity ft per M	2" SP		2½" SP		3" SP		3½" SP		4" SP		4½" SP		5" SP		5½" SP		6" SP		6½" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
7650	1000	646	3.58	722	4.70																
8415	1100	647	3.78	722	4.95																
9180	1200	649	3.99	723	5.22																
9945	1300	652	4.20	725	5.45	792	6.82	855	8.19	913	9.95										
10710	1400	657	4.46	727	5.72	794	7.11	856	8.57	914	10.10										
11475	1500	665	4.78	731	6.01	795	7.41	857	8.95	915	10.48										
12240	1600	674	5.13	737	6.36	799	7.73	859	9.26	916	10.86	970	12.55	1022	14.23	1071	15.99	1119	17.75	1164	19.58
13005	1700	684	5.52	745	6.79	804	8.11	862	9.64	918	11.25	972	13.01	1023	14.76	1072	16.45	1119	18.36	1164	20.27
13770	1800	696	5.92	754	7.23	811	8.57	867	10.02	920	11.70	973	13.46	1024	15.22	1073	16.98	1120	19.05	1165	20.96
14535	1900	708	6.35	765	7.73	820	9.10	873	10.56	925	12.16	976	13.92	1026	15.76	1075	17.52	1121	19.66	1166	21.65
15300	2000	721	6.82	776	8.19	829	9.64	881	11.17	931	12.70	980	14.46	1029	16.29	1077	18.05	1122	20.20	1167	22.26
16065	2100	735	7.29	788	8.72	840	10.25	890	11.78	938	13.39	986	15.07	1033	16.83	1079	18.82	1124	20.81		
16830	2200	750	7.80	801	9.33	851	10.86	900	12.47	947	14.08	993	15.76	1038	17.52	1083	19.43	1127	21.42		
17595	2300	766	8.34	815	9.87	863	11.48	911	13.16	956	14.84	1001	16.52	1045	18.28	1088	20.12	1131	22.19		
18360	2400	782	8.95	830	10.56	876	12.16	922	13.85	967	15.61	1011	17.37	1053	19.13	1095	21.04	1137	22.95		
19125	2500	800	9.56	845	11.17	890	12.85	934	14.61	978	16.37	1021	18.21	1062	20.04	1103	21.96	1143	23.87		
19890	2600	819	10.17	861	11.86	904	13.62	947	15.38	991	17.21	1032	19.05	1072	20.96	1112	22.87	1152	24.86		
21420	2800	855	11.63	895	13.39	935	15.22	975	17.06	1016	18.97	1055	20.96	1094	22.95	1132	24.94	1170	26.93		
22950	3000	894	13.31	931	15.07	969	16.98	1006	18.90	1044	20.96	1081	22.95	1118	25.02	1155	27.16	1191	29.30		
24480	3200	933	15.07	969	16.98	1005	18.90	1039	20.96	1074	23.03	1110	25.17	1145	27.31	1180	29.53	1215	31.82		
26010	3400	973	17.06	1008	19.05	1041	21.11	1074	23.18	1107	25.32	1140	27.54	1174	29.84	1206	32.13	1240	34.43		
27540	3600	1014	19.20	1048	21.34	1080	23.41	1111	25.63	1143	27.85	1173	30.14	1205	32.51	1236	34.88				
29070	3800	1057	21.57	1088	23.87	1119	26.09	1149	28.31	1179	30.60	1209	32.97	1238	35.42	1267	37.87				
30600	4000	1102	24.10	1129	26.55	1160	28.92	1188	31.21	1216	33.58	1245	36.03	1274	38.48	1301	41.08				

All Capacities Based on Standard Air (Density .075#/cu.ft.—70° F.—29.92" Hg. Bar.)

NOTES: (1) Ball bearings are standard on all Type NH, Class II-A Fans. (2) Values underlined indicate the most efficient point of operation for each pressure. (3) When equipped with Vortex Control increase speed 1%.

CLASS II-A
MAX. RPM
1233

CLARAGE TYPE NH FANS

NON-OVERLOADING MEDIUM SPEED HIGH EFFICIENCY

SIZE 80½
SINGLE WIDTH
SINGLE INLET

Outlet Size 32⅝" x 42⅝" Outside **Wheel Diameter 40¼ in.**

Inlet Size 45" Dia. Outside **Outlet Area 9.33 Sq. Ft. Inside**

Tip Speed = RPM × 10.54 **Max. BHP = 30.42** $\left(\frac{RPM}{1000}\right)^3$

Volume of Air CFM	Outlet Velocity ft per M	¼" SP		⅜" SP		½" SP		⅝" SP		¾" SP		⅞" SP		1" SP		1¼" SP		1½" SP		1¾" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
7464	800	244	0.44	275	0.61	306	0.78	334	0.97	362	1.18	389	1.42	415	1.66	463	2.17	507	2.72	548	3.27
8397	900	259	0.53	288	0.71	315	0.91	342	1.10	368	1.31	393	1.53	417	1.78	465	2.32	508	2.90	548	3.50
9330	1000	276	0.64	302	0.83	327	1.04	352	1.25	376	1.47	399	1.70	422	1.94	467	2.48	509	3.08	549	3.71
10263	1100	294	0.77	317	0.97	340	1.19	363	1.42	386	1.65	408	1.89	430	2.15	471	2.67	511	3.27	550	3.93
11196	1200	312	0.91	334	1.13	355	1.36	376	1.60	397	1.86	418	2.11	439	2.38	478	2.92	516	3.50	553	4.15
12129	1300	331	1.08	351	1.32	371	1.56	390	1.81	410	2.07	430	2.34	449	2.62	486	3.20	522	3.79	557	4.41
13062	1400	351	1.27	369	1.53	388	1.77	406	2.04	424	2.31	442	2.60	461	2.89	496	3.50	530	4.11	564	4.76
13995	1500	371	1.48	387	1.75	405	2.02	422	2.30	439	2.58	456	2.88	474	3.19	507	3.82	540	4.47	572	5.14
14928	1600	391	1.73	406	2.02	423	2.30	439	2.59	455	2.88	471	3.19	487	3.51	519	4.17	551	4.85	581	5.55
15861	1700	411	2.01	426	2.30	441	2.60	457	2.91	472	3.21	487	3.54	502	3.86	532	4.54	562	5.25	592	5.98
16794	1800	431	2.31	446	2.60	460	2.93	475	3.25	490	3.57	504	3.91	518	4.25	546	4.95	575	5.69	603	6.45
17727	1900	453	2.64	466	2.95	480	3.29	493	3.64	508	3.97	521	4.32	535	4.67	561	5.39	588	6.16	615	6.94
18660	2000			486	3.33	500	3.68	512	4.05	526	4.40	539	4.76	552	5.12	577	5.87	603	6.66	628	7.47
19593	2100			506	3.76	520	4.11	531	4.49	544	4.87	557	5.24	569	5.62	594	6.39	618	7.19	642	8.03
20526	2200			527	4.23	540	4.57	551	4.96	563	5.36	575	5.76	587	6.16	611	6.94	634	7.77	657	8.64
21459	2300					560	5.08	571	5.48	582	5.90	593	6.31	605	6.73	628	7.55	650	8.39	672	9.27
22392	2400					580	5.64	591	6.04	602	6.47	612	6.91	624	7.33	646	8.19	667	9.02	688	9.98
23325	2500					600	6.24	611	6.64	622	7.07	632	7.53	643	7.99	664	8.88	684	9.80	705	10.73
24258	2600							632	7.29	643	7.73	652	8.24	662	8.68	682	9.61	702	10.54	722	11.48
26124	2800							673	8.76	683	9.19	692	9.70	701	10.17	719	11.20	738	12.22	757	13.25
27990	3000							715	10.45	723	10.92	732	11.38	742	11.85	757	12.97	775	14.09	793	15.11
29856	3200									765	12.78	772	13.34	783	13.81	797	14.93	813	16.14	830	17.26
31722	3400									807	14.83	814	15.49	824	16.05	837	17.17	853	18.38	867	19.59
33588	3600									849	16.89	857	17.82	865	18.47	878	19.59	894	20.81	906	22.11

Volume of Air CFM	Outlet Velocity ft per M	2" SP		2½" SP		3" SP		3½" SP		4" SP		4½" SP		5" SP		5½" SP		6" SP		6½" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
9330	1000	586	4.37	655	5.73																
10263	1100	587	4.61	655	6.04																
11196	1200	589	4.86	656	6.36																
12129	1300	591	5.12	657	6.65	719	8.32	775	9.98	828	12.13										
13062	1400	596	5.44	659	6.98	720	8.67	776	10.45	829	12.32										
13995	1500	603	5.83	663	7.32	721	9.04	777	10.92	830	12.78										
14928	1600	611	6.26	669	7.76	724	9.42	779	11.29	831	13.25	880	15.30	927	17.35	972	19.50	1015	21.65	1056	23.88
15861	1700	620	6.73	676	8.28	729	9.89	782	11.76	832	13.72	881	15.86	928	18.01	972	20.06	1015	22.39	1056	24.72
16794	1800	631	7.22	684	8.82	736	10.45	786	12.22	835	14.27	883	16.42	929	18.57	973	20.71	1016	23.23	1057	25.56
17727	1900	642	7.74	693	9.42	743	11.10	792	12.88	839	14.83	886	16.98	931	19.22	975	21.37	1017	23.98	1058	26.40
18660	2000	654	8.32	704	9.98	752	11.76	799	13.62	844	15.49	889	17.63	933	19.87	977	22.02	1018	24.63	1059	27.15
19593	2100	667	8.89	715	10.64	762	12.50	807	14.37	851	16.33	894	18.38	937	20.53	979	22.95	1020	25.38		
20526	2200	680	9.52	727	11.38	772	13.25	816	15.21	859	17.17	901	19.22	942	21.37	982	23.70	1022	26.12		
21459	2300	694	10.17	739	12.04	783	14.00	826	16.05	867	18.10	908	20.15	948	22.30	987	24.54	1026	27.06		
22392	2400	710	10.92	752	12.88	795	14.83	836	16.89	877	19.03	917	21.18	956	23.33	993	25.66	1031	27.99		
23325	2500	726	11.66	766	13.62	807	15.67	847	17.82	887	19.97	926	22.21	964	24.44	1001	26.78	1037	29.11		
24258	2600	742	12.41	781	14.46	820	16.61	859	18.75	899	20.99	936	23.23	972	25.56	1009	27.90	1045	30.32		
26124	2800	775	14.18	812	16.33	848	18.57	885	20.81	921	23.14	957	25.56	992	27.99	1027	30.42	1061	32.84		
27990	3000	811	16.23	845	18.38	879	20.71	912	23.05	947	25.56	981	27.99	1014	30.51	1048	33.12	1080	35.73		
29856	3200	847	18.38	879	20.71	911	23.05	942	25.56	975	28.08	1007	30.70	1039	33.31	1070	36.01	1102	38.91		
31722	3400	883	20.81	915	23.23	944	25.75	975	28.27	1004	30.88	1034	33.59	1065	36.39	1094	39.19	1125	41.99		
33588	3600	920	23.42	951	26.03	979	28.55	1008	31.26	1036	33.96	1064	36.76	1093	39.65	1121	42.54				
35454	3800	959	26.31	987	29.11	1015	31.82	1042	34.52	1069	37.32	1096	40.21	1123	43.20	1149	46.18				
37320	4000	1000	29.39	1024	32.38	1052	35.27	1078	38.07	1103	40.96	1129	43.94	1155	46.93	1180	50.10				

All Capacities Based on Standard Air (Density .075#/cu.ft.—70° F.—29.92" Hg. Bar.)

NOTES: (1) Ball bearings are standard on all Type NH, Class II-A Fans. (2) Values underlined indicate the most efficient point of operation for each pressure. (3) When equipped with Vortex Control increase speed 1%.

SIZE 89
SINGLE WIDTH
SINGLE INLET

CLARAGE TYPE NH FANS

NON-OVERLOADING **MEDIUM SPEED** **HIGH EFFICIENCY**

CLASS II-A
MAX. RPM
1117

Outlet Size 36" x 47⅛" Outside **Wheel Diameter 44½ in.**

Inlet Size 49" Dia. Outside **Outlet Area 11.41 Sq. Ft. Inside**

Tip Speed = RPM × 11.65 **Max. BHP = 50.18** $\left(\frac{RPM}{1000}\right)^3$

Volume of Air CFM	Outlet Velocity ft per M	¼" SP		⅜" SP		½" SP		⅝" SP		¾" SP		⅞" SP		1" SP		1¼" SP		1½" SP		1¾" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
9128	800	220	.54	249	.63	276	.96	302	1.19	328	1.45	352	1.73	376	2.03	419	2.66	459	3.32	496	3.99
10269	900	235	.65	260	.87	285	1.11	309	1.35	333	1.60	356	1.87	378	2.18	420	2.84	460	3.55	496	4.28
11410	1000	250	.79	273	1.02	296	1.28	318	1.53	340	1.80	361	2.08	382	2.37	422	3.04	461	3.77	497	4.54
12551	1100	266	.94	287	1.19	308	1.46	329	1.73	349	2.02	369	2.32	389	2.62	426	3.26	462	4.00	498	4.80
13692	1200	282	1.12	302	1.38	321	1.67	340	1.96	360	2.27	378	2.58	397	2.91	432	3.57	466	4.28	500	5.08
14833	1300	299	1.32	318	1.61	336	1.91	353	2.21	371	2.53	389	2.86	407	3.21	440	3.91	473	4.64	504	5.40
15974	1400	317	1.55	334	1.87	351	2.17	367	2.50	384	2.83	400	3.18	417	3.54	449	4.28	480	5.03	510	5.82
17115	1500	335	1.81	351	2.15	367	2.48	382	2.81	397	3.16	413	3.53	428	3.90	459	4.67	489	5.47	517	6.29
18256	1600	353	2.11	368	2.46	383	2.82	398	3.17	412	3.53	426	3.90	441	4.29	470	5.10	498	5.93	526	6.79
19397	1700	371	2.45	386	2.81	399	3.18	414	3.56	427	3.93	441	4.32	454	4.72	482	5.56	509	6.42	535	7.31
20538	1800	390	2.83	404	3.18	416	3.58	430	3.97	443	4.37	456	4.78	469	5.19	494	6.06	520	6.96	546	7.88
21679	1900	410	3.23	422	3.61	434	4.03	446	4.45	459	4.86	471	5.28	484	5.71	508	6.59	532	7.53	557	8.49
22820	2000			440	4.07	452	4.50	463	4.95	475	5.39	487	5.82	499	6.26	522	7.18	545	8.15	568	9.14
23961	2100			459	4.60	470	5.02	481	5.49	492	5.96	503	6.41	515	6.87	537	7.82	559	8.80	581	9.82
25102	2200			478	5.17	488	5.59	499	6.07	509	6.56	520	7.04	531	7.53	552	8.49	573	9.50	594	10.57
26243	2300					506	6.21	517	6.71	527	7.21	537	7.71	547	8.23	568	9.23	588	10.26	608	11.34
27384	2400					525	6.89	535	7.38	545	7.91	554	8.45	564	8.97	584	10.02	603	11.03	623	12.21
28525	2500					544	7.63	553	8.12	563	8.65	571	9.21	581	9.77	600	10.86	619	11.98	638	13.12
29666	2600							572	8.91	581	9.45	590	10.08	598	10.61	617	11.75	635	12.89	653	14.03
31948	2800							609	10.71	617	11.24	626	11.87	634	12.44	650	13.69	668	14.95	685	16.20
34230	3000							647	12.78	654	13.35	662	13.92	670	14.49	685	15.86	701	17.23	717	18.48
36512	3200									692	15.63	699	16.32	706	16.89	721	18.26	736	19.74	750	21.11
38794	3400									730	18.14	737	18.94	743	19.63	758	20.99	772	22.48	784	23.96
41076	3600									768	20.65	776	21.79	781	22.59	795	23.96	808	25.44	820	27.04

Volume of Air CFM	Outlet Velocity ft per M	2" SP		2½" SP		3" SP		3½" SP		4" SP		4½" SP		5" SP		5½" SP		6" SP		6½" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
11410	1000	530	5.34	592	7.01																
12551	1100	531	5.64	593	7.38																
13692	1200	533	5.94	594	7.78																
14833	1300	535	6.26	595	8.14	650	10.18	701	12.21	750	14.83										
15974	1400	539	6.65	597	8.53	651	10.60	702	12.78	750	15.06										
17115	1500	545	7.13	600	8.96	653	11.06	703	13.35	751	15.63										
18256	1600	553	7.66	605	9.49	655	11.52	705	13.81	752	16.20	796	18.71	839	21.22	879	23.85	918	26.47	955	29.21
19397	1700	561	8.23	612	10.12	660	12.09	707	14.38	753	16.77	797	19.40	839	22.02	880	24.53	918	27.38	956	30.24
20538	1800	571	8.83	619	10.78	666	12.78	711	14.95	755	17.46	799	20.08	841	22.71	881	25.33	919	28.41	956	31.26
21679	1900	581	9.47	627	11.52	673	13.58	716	15.75	759	18.14	801	20.77	842	23.50	882	26.13	920	29.32	957	32.29
22820	2000	592	10.18	637	12.21	680	14.38	723	16.66	764	18.94	804	21.56	844	24.30	884	26.93	921	30.12	958	33.20
23961	2100	603	10.87	647	13.01	689	15.29	730	17.57	770	19.97	809	22.48	848	25.10	886	28.07	923	31.04		
25102	2200	615	11.64	657	13.92	698	16.20	738	18.60	777	20.99	815	23.50	852	26.13	889	28.98	925	31.95		
26243	2300	628	12.44	669	14.72	708	17.12	747	19.63	785	22.14	822	24.65	858	27.27	893	30.01	928	33.09		
27384	2400	642	13.35	681	15.75	719	18.14	757	20.65	793	23.28	829	25.90	865	28.53	899	31.38	933	34.23		
28525	2500	657	14.26	693	16.66	730	19.17	767	21.79	803	24.42	838	27.16	872	29.89	905	32.75	938	35.60		
29666	2600	672	15.18	706	17.69	742	20.31	778	22.93	813	25.67	847	28.41	880	31.26	913	34.12	945	37.08		
31948	2800	701	17.34	735	19.97	767	22.71	800	25.44	834	28.30	866	31.26	898	34.23	929	37.20	960	40.16		
34230	3000	733	19.85	764	22.48	795	25.33	825	28.18	857	31.26	887	34.23	918	37.31	948	40.51	977	43.70		
36512	3200	766	22.48	795	25.33	824	28.18	853	31.26	882	34.34	911	37.54	940	40.73	968	44.04	997	47.47		
38794	3400	799	25.44	827	28.41	854	31.49	882	34.57	909	37.77	936	41.08	963	44.50	990	47.92	1018	51.35		
41076	3600	832	28.64	860	31.83	886	34.91	912	38.22	938	41.53	963	44.96	988	48.49	1014	52.03				
43358	3800	868	32.18	893	35.60	918	38.91	943	42.22	968	45.64	992	49.18	1016	52.83	1040	56.48				
45640	4000	905	35.94	926	39.59	952	43.13	975	46.55	998	50.09	1022	53.74	1045	57.39	1067	61.27				

All Capacities Based on Standard Air (Density .075#/cu.ft.—70° F.—29.92" Hg. Bar.)

NOTES: (1) Ball bearings are standard on all Type NH, Class II-A Fans. (2) Values underlined indicate the most efficient point of operation for each pressure. (3) When equipped with Vortex Control increase speed 1%.