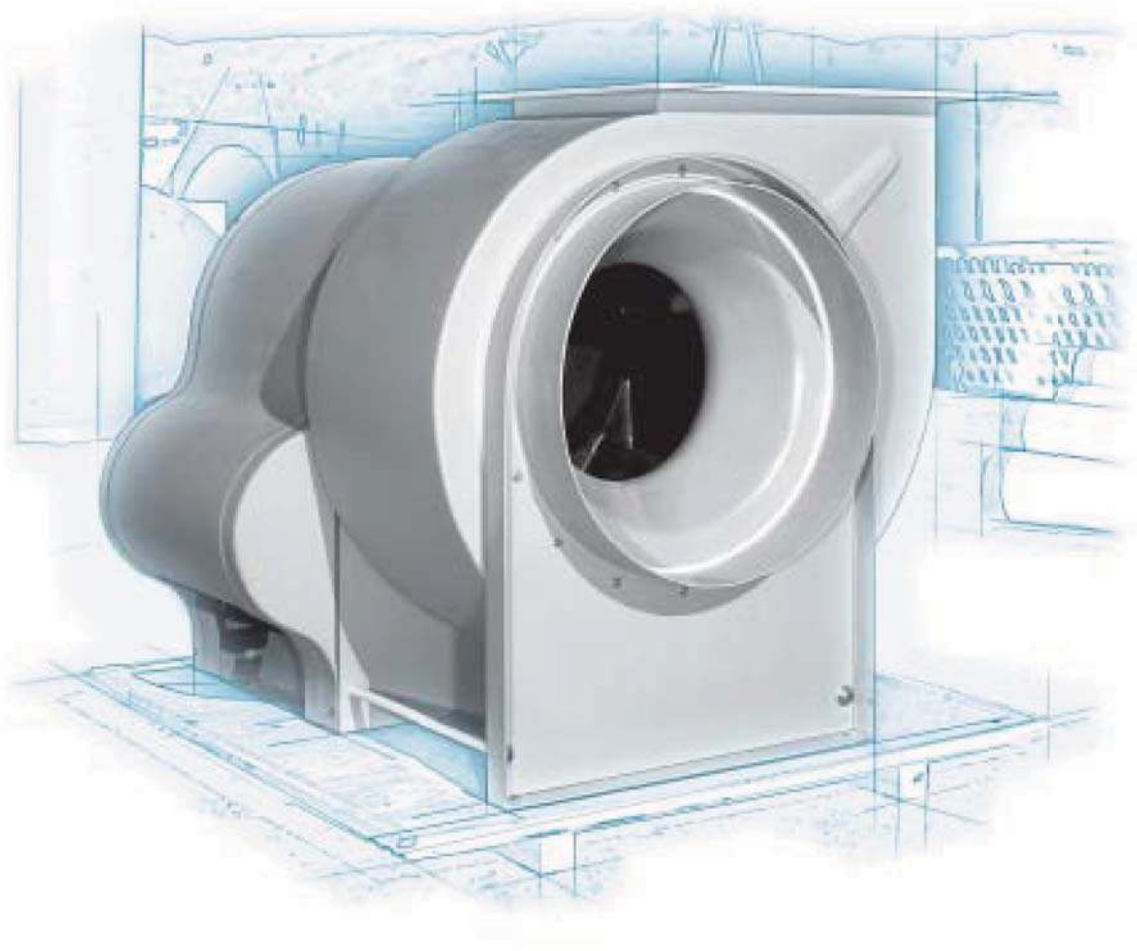
CECO HEE-Duall

Air Pollution Control Products
HPCA SERIES



FRP Centrifugal Airfoil Fans

Bulletin HEE HPCA 300B
January 2018

CECO ENVIRONMENTAL

CECO HEE-Duall

Air Pollution Control | CONSTRUCTION FEATURES

HOUSING DESIGN

The sprial shaped housing is designed to collect the air leaving the periphery of the wheel and reduce its velocity with a minimu of turbulence, thereby efficiently converting velocity pressure to static pressure for increased performance.

OUTLET FLANGES

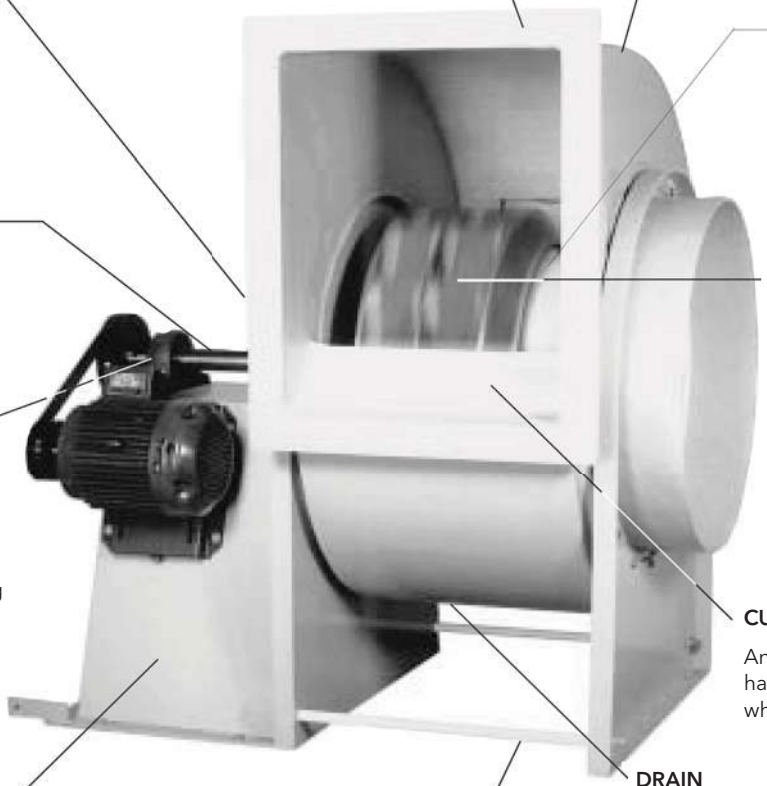
The flanges are standard on all HPCA series centrifugal fans. The heavy duty, undrilled flange has a smooth sealing face. Drilling is available as an option.

SHAFT SEAL

A neoprene sgaft seal is used to prevent leakage of corrosive fumes which could damage the bearings and the shaft. The elastomer seals against the fiberglass shaft sleeve.

STREAMLINED INLET CONE

A new and improved inlet cone has been provided, allowing the correct overlap into the wheel. This design allows the correct air entry into the wheel and prevents leakage.



SHAFTS

All HPCA series fans utilize a turned ground and polished carbon steal shaft material. Stainless steel is available for special orders on request.

FIBERGLASS CENTRIFUGAL AIR FOIL WHEEL

The backward-inclined airfoil wheel has ten airfoil profile blades with a vinyl ester resin exterior and a high density light weight interior allowing Class III speeds. The imbedding hub is bolted and bonded to the backplate and permanently encased with a FRP cover.

BEARINGS

Grease lubricated fully self-aligned pillow block ball bearings are standard equipment. Minimum starting friction, simple maintenance and long, trouble0free life expectancy make them ideal for fan service.

CUTOFF PLATE

An extended and redesigned cutoff plate has been designed for this new airfoil wheel to provide maximum efficiency.

DRAIN

Every HEE-Duall centrifugal exhaust fan is supplied with a 1" threaded drain outlet located in the bottom most position of the housing.

BASE

The heavy duty base is sand blasted to white metal and powder coated with a hybrid epoxy urethane blend and oven cured to provide an acid-caustic resistant coating system.

REINFORCING RODS

The rods are encapsulated in polyvinyl chloride and provide maximum rigidity to the front support frame.

AMCA LICENSED

AMCA Seal Met-Pro Technologies, d/b/a HEE Enviro. Eng. & Duall Air & Water Technologies certifies that the HPCA series FRP Centrifugal Fans shown herein are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA PUBLICATION 211 and comply with the requirements of the AMCA Certified Ratings Program.

FEATURES AND GENERAL INFORMATION

The HEE-Duall backward inclined Airfoil wheel is the result of years of design and experimentation. This unique Airfoil blade profile is a composite structure consisting of a premium grade vinyl resin fiberglass exterior and high density light weight interior. This modern construction provides excellent chemical resistance to a wide variety of corrosive chemicals and is practically impervious to most chemicals. The light weight construction and unique Airfoil profile shape allows operation at higher speeds up to Class lll construction without distortion or bond separation and allows pressures up to 18 inches WG. To obtain the new maximum safe speed when temperature is involved, multiply the maximum safe speed as listed for each fan sized by correction factor.

Each of the following capacity tables include a CFM, Static Pressure, outlet velocity, and the corresponding RPM and BHP. If capacities are not at standard conditions (0.75 lbs/ft 3), correction factors must be applied to the static pressure and BHP.

The ultimate measure of fan performance is operating efficiency. High efficiency means lower operating cost throughout the life of the equipment. The HPCA Airfoil design provides static efficiencies up to 83%. This feature will provide a tremendous energy savings.

Fourteen sizes are available from models HPCA 2000 to 7300. HEE-Duall recommends using the flat blade backward inclined model HPC series, on fans below the HPCA 2000 model, since the merits of airfoil are lost in smaller fan sizes.

All HEE-Duall HPCA series Centrifugal Airfoil fans conform to ASTM D4167 standard specifications for fiber reinforced plastic fans and blowers. For applications requiring an additional corrosion barrier, Harrington recommends an interior veil on the fan scroll providing a resin-rich layer.

All wheels are statically and dynamically balanced on electronically controlled balancing machines. The necessary weight adjustments are made by removing excess material, or by permanently bonding fiberglass material to the wheel. After completed fan assembly, the fans are test run at the customers operating speed to locate and correct any minor misalignment that may have occurred during assembly. They are checked for proper bearing operation.

Sound information is available from HEE-Duall. This data is the result of laboratory testing based on AMCA standard 300 and processed by the procedures shown in AMCA Bulletin 301. The AMCA Certified ratings seal applies to air performance only.

FAN SELECTION AND PERFORMANCE

The Performance Tables shown in this brochure are based on unobstructed air flows into the inlet of the fan. During installation, the fan inlet conditions should be designed to allow the air to enter the housing resembling a fan with an unobstructed inlet. The fan performance can be adversely effected by poor inlet conditions creating uncontrolled spin, unequal air loading or imbalance. Elbows located directly at the inlet should be avoided and properly sized inlet boxes or straightening vanes should be utilized. It is good practice to include the equivalent of two duct diameters prior to the fan inlet.

The addition of a short outlet stack will improve the overall performance of the fan. Testing has shown up to a 7% improvement in performance by the addition of an outlet stack.

The Bl Airfoil wheel blades provides non-overloading performance. This allows the brake horsepower to level off at a point where motors can be economically selected so they will not overload if the system pressure drops.

The brake horsepower shown in the performance tables does not include the drive or belt losses. Normally, the belt drive losses vary from 5% to 20% of the motor horsepower output.

The estimated belt loss can be obtained using the table located on page 6.

The chemical and structural properties of fiberglass are excellent. FRP fans moving air at higher temperatures will usually effect the chemical resistance. In addition, the maximum safe speeds should be de-rated using the following table:

Maximum Safe Speed Correction Factors

Temp (F)	70	100	150	175	200
Factor	1.0	1.0	0.95	0.93	0.91

To obtain the new maximum safe speed when temperature is involved, multiply the maximum safe speed as listed for each fan size by the correction factor.

Each of the following capacity tables include a CFM, static pressure, outlet velocity and the corresponding RPM and BHP. If capacities are not at standard conditions (70 degrees F at sea level) or at standard density of .075 pounds/Cu.Ft., correction factors must be applied to static pressure and BHP. The most efficient fan operation above the solid black line represents peak efficiency and the most quiet performance.

Fan performance is shown for Class I, II and Ill. The maximum safe tip speed for each construction is 10,000, 14,000 and 17,000 feet per minute. The capacity table also includes the maximum fan PRM for each Class construction.

FIBERGLASS CENTRIFUGAL FAN | MODEL HPCA
STANDARD FEATURES

The Model HPCA fiberglass fan is a backward curved, Single Width, Single Inlet (SWSI) industrial fan designed to handle corrosive or caustic air in low to moderate pressure application. All parts exposed to the airstream are construction of a premium grade corrosion resistant vinyl ester fiberglass. The model HPCA fan is licensed to bear the AMCA Seal for Certified Air Performance, bears the marking and conforms to ASTM D4167-15. Standard configuration is arrangement 9, belt drive with the motor and slide base mounted on side of the metal fan frame.

PERFORMANCE is from 1,000 CFM to 150,000 CFM at free delivery and up to 18.5 inches W.G. and suitable for airstream temperature up to 200°F.

AIR PERFORMANCE AND SOUND DATA is based on test and procedures as outlined in ANSI/AMCA Standard 210-16/ASHRAE 51-16 and rated in accordance with AMCA 211-13. Sound data is obtained as described in ANSI/AMCA 300-08 and processed per procedures per ANSI/AMCA 301-14.

SIZES of 2000, 2225, 2450, 2700, 3000, 3300, 3650, 4025, 4450, 4900, 5425, 6000, 6600 and 7300 (14 sizes) for Class I, Class II and Class III tip speeds up to 10,000, 14,000 and 17,000 feet per minute.

CORROSION-RESISTANT CONSTRUCTION is used throughout the model HPCA fan using premium grade fiberglass construction materials for the with no metal parts exposed in the airstream. All 316 stainless steel hardware is used, grade 5 electroplated hardware is used to secure the bearings and motor to the fan frame. Drain connection is 1 inch NPT. The inlet is plain end collar connection and the outlet is flanged. The fiberglass housing is constructed using a fire retardant AOC vinyl ester resin to achieve a Class 1 flame spread of 25 or less per ASTM E-84-06. All exterior surfaces of the fiberglass fan components are coated with a UV resistant coating with a colorant such as tan or white.

ROTATION AND DISCHARGE POSITIONS are available in counterclockwise and clockwise rotation in the standard sixteen discharge positions. The housing is rotatable on all diameters at 22.5-degree increments for fan models HPCA 2000 to HPCA 3300 and at 15-degree increments for fan models HPCA 3650 to HPCA 7300.

WHEEL DESIGN is 100% premium AOC vinyl ester fiberglass construction with a ten airfoil blade shaped design and non-overloading operation with self-limiting horsepower that reaches a peak in the selected area. The wheel and shaft assembly is statically and dynamically balanced per ISO 1940/1 and ANSI S2.19-1975 using balance quality grade 6.3.

FAN SHAFT is carbon steel turned ground and polished, conforms to AISI 1045 and keyed at both ends with a dimple for RPM measurement. The shaft is securely fixed and bonded to the wheel backplate using a steel hub and completely encapsulated with fiberglass. A fiberglass shaft sleeve will extend through the housing for corrosion protection. Shafts are sized to operate at 80% of first critical shaft speed.

FAN SHAFT SEAL will be neoprene with a fiberglass retainer ring installed to the fan housing backplate where the shaft leaves the fan housing.

BEARINGS will be normal or medium duty ball bearing pillow block design, self-aligning with felt-lined flinger seal and 120° setscrew position, black oxide, corrosion resistant race with a one-piece cast iron housing material. Bearings will be selected with a minimum average bearing life (AFMBLA L-50) of 250,000 hours. Larger diameter shafts will utilize tapered roller bearings design.

DRIVE (BELT DRIVEN FANS) fixed speed V-belt drives will be standard using cast iron sheaves on the motor and fan shafts selected with a minimum safety factor of 1.3 for 10 HP and under and a safety factor of 1.4 for motors larger than 10 HP.

MOTORS 1-200 HP will be TECO Westinghouse TEFC MAX-PE® to meet the latest NEMA, IEEE and SCA standards with NEMA Design B, 36 month warranty, for 60 Hz (230/460V), UL recognized, Class F insulation with 1.15 Service Factor, Class B temperature rise @ 40°C ambient, Design B torques as a minimum, Inverter rated per NEMA MG 1 with a 1.0 S.F., UL recognized, DOE certified, CSA approved, CE marked and EISA compliant. Motors are suitable for Class I, Division II, Groups B, C and D. Motors are mounted on a slide base for an arrangement 9 configuration.

MOTORS 250-400 HP will be TECO Westinghouse TEFC MAX-E2/841® to meet the latest NEMA, IEEE-841 and SCA standards with NEMA Design B, 60 month warranty, for 60 Hz (460V), UL recognized, Class F insulation with 1.15 Service Factor, Class B temperature rise @ 40°C ambient, Design B torques as a minimum, Inverter rated per NEMA MG 1 with a 1.0 S.F., UL recognized, DOE certified, CSA approved, CE marked and EISA compliant. Motors are suitable for Class I, Division II, Groups B, C and D. Motors are mounted on a slide base for an arrangement 9 configuration.

MOTOR DRIVE CANOPY or weather covers are fabricated of fiberglass reinforced plastics and are used when the fan is located indoors or outdoors. These covers are designed to provide protection of the motor, drives, shaft, and bearings.

FAN BASE will be heavy gauge carbon steel, welded. Bare metal is cleaned with no trace of oil, grease, rust, or moisture. All metal surfaces are treated with an abrasive blast using a titanium derivative of a fine to medium quartz mixture. All metal surfaces are treated to a white metal finish. An electrostatic powder coating is applied within an eight (8) hour period and an oven cure is completed.

FACTORY TEST of the completely assembled fan is conducted prior to shipment at the operating speed or maximum allowable RPM and will pass the vibration requirements of ANSI/AMCA 204-96 "Balance Quality and Vibration Levels for Fans" taking a reading on both bearings in the vertical, horizontal and axial direction. Records will be maintained of the test results and available upon request.

FIBERGLASS CENTRIFUGAL EXHAUST FAN | MODEL HPCA
OPTIONS

ADJUSTABLE OR VARIABLE PITCH DRIVES are provided and will allow up to ten percent adjustment of the fan RPM in either direction.

ARRANGEMENT 1 is required for motors too large to fit on the side of the arrangement 9 fan steel base and is available per your requirements with the motor position in standard AMCA positions. This Arrangement 1 will require a separate steel structural base for mounting the fan and motor with a belt guard and shaft-bearing guard.

ARRANGEMENT 8 is a direct drive arrangement with a flexible FALK coupling. The fan shaft connects directly to the fan motor shaft and includes lifting lugs. This arrangement eliminates the requirement for V-Belt sheaves and belts and provides the smoothest fan operation for applications requiring minimal vibration by eliminating belt slap and reduced maintenance. This arrangement 8 also allows for a larger motor.

BELT AND SHAFT GUARD can be used when fans are installed indoors and will cover drives, belts, bearings and fan shafts. Both guards can be easily removed for access to the drives and bearings. These guards will replace the Motor Drive Canopy. This is required for an arrangement 1 fan configuration.

CUSTOM EXTERIOR COLOR can be any color to match your requirements or you can request the Interplastic Color Selection Chart to select from optional colors. Standard colors are TAN and WHITE.

FLANGE DRILLING is available on all flanges for ease of direct connection to ductwork and included stainless steel hardware and caulking.

FLANGED INLET is permanently bonded to the attaching ring and provides a continuous smooth flange surface. Drilling is available as an option. Dimensions and drilling confirms to PS 15-69 and ASTM D3982-08. An inlet collar is standard.

HOUSING DRAIN fitting is 1 inch NPT standard but can be 2 inch NPT on larger fans. The drain fitting can also be supplied with an isolation valve and PVC elbow and short pipe for convenient field connection.

INLET OR OUTLET SCREENS can be installed to offer protection on the inlet side from the rotating fan wheel or on the outlet to prevent foreign objects from entering the wheel housing.

INTERIOR VEIL is standard on the fan wheel blades and the back plate. If an addition barrier is required because of severe chemical service application on the fan housing interior, a veil interior can be provided on the fan housing as an option. However, the fan housing already includes a resin rich and smooth flow coat without the use of a surface veil.

MOTOR ENCLOSURES are available in many different enclosure types such as IEEE-841 (Petroleum and Chemical Industry) and explosion proof for Class I and Class II requirements.

MOTOR OPTIONS include insulated bearings and shaft grounding rings and are used to eliminate and reduce shaft currents and/or winding stresses by using an inverter (VFD). Other options include thermostats, thermistors, RTDs, space heaters, high altitude rating, special voltages and overseas hertz requirements.

SHAFT can be 304, 316 Stainless Steel or Hastalloy C shafts are available and will provide an extra degree of corrosion resistance when the fans area installed in a harsh chemical environment.

SHAFT SEAL can be Viton or Teflon shaft seal material offering superior chemical resistance and seals against the fiberglass shaft sleeve instead of the standard neoprene material. For service operating with a positive pressure in the fan housing, a mechanical shaft seal is also available as an option with a lubricated double lip seal.

SPARK RESISTANT CONSTRUCTION is used for applications which handle potentially explosive fumes or gases. The interior air stream surface is coated with a conductive coating and a grounding strap is secured to the steel base. During installation, the steel fan frame should be grounded. Request the Spark Resistant Construction Data Sheet for further details.

STAINLESS STEEL FAN BASE can be supplied using 316 stainless material instead of carbon steel – power coated construction. This option provide additional protection against environmentally corrosive locations.

FIBERGLASS CENTRIFUGAL EXHAUST FAN | MODEL HPCA
ACCESSORIES

ACCESS DOOR is necessary for wheel inspection and maintenance on all units which utilize a discharge transition or stack. All access doors are fiberglass and bolted to the housing and include neoprene gaskets and can follow the contour of the fan housing or be a raised surface design with a flanged cover bolted in place.

BALLISTIC BLANKET PROTECTION uses a Kevlar construction and secure netting construction system designed to withstand and provide protection in the unlikely event the wheel components delaminate and become separated.

DISCONNECT SWITCH can be mounted and wired to the fan and fan motor or can be shipped loose for field installation. NEMA 3R, 1 or 4X are available.

EXTENDED LUBE LINES can be provided allowing a convenient method of lubricating the bearings without the need to remove guards or covers.

FLEXIBLE CONNECTIONS are supplied and fabricated from a wide variety of different elastomer materials suitable for service with corrosives contained in the air stream. The design can be wrapped style, flanged or boot sleeve style with carbon steel, stainless steel or fiberglass backup rings. Elastomer materials can be EPDM, Neoprene, solid PTFE or PTFE coated fiberglass or Viton.

GRAVITY DAMPERS constructed of fiberglass prevent rain from entering the inlet duct work and foreign objects from entering the fan wheel during shut down periods. In addition, they can also reduce the amount of backwards airflow in a parallel fan arrangement if the fan goes offline for service or maintenance.

INLET BOXES are fabricated of fiberglass and provide a convenient means of locating an inlet 90 degrees to the fan inlet with predictable entry losses. This minimizes the pressure drop and is recommended to provide uniform air flow into the fan wheel.

INLET VANE AND OUTLET DAMPERS fabricated of FRP or 316 stainless steel provide a means of volume control with corrosion resistance. Dampers can be motorized either electrically or pneumatically.

LIFTING LUGS can be included on the steel fan frame to simplify lifting the fan during installation. Lifting lugs are standard on arrangement 8 fans.

NOISE REDUCTION options include a fiberglass sound enclosure to reduce the transmission of noise by 10-20 dBA or a heavy core acoustic blanket secured around the fan housing.

OUTLET TRANSITIONS are match drilled to the fan outlet flange and allow the installation of a round duct. These are fabricated from fiberglass and can be customized for the application.

STACKS are available using fiberglass construction and are built to order for a free standing or guy wire design and include seismic and wind load calculations.

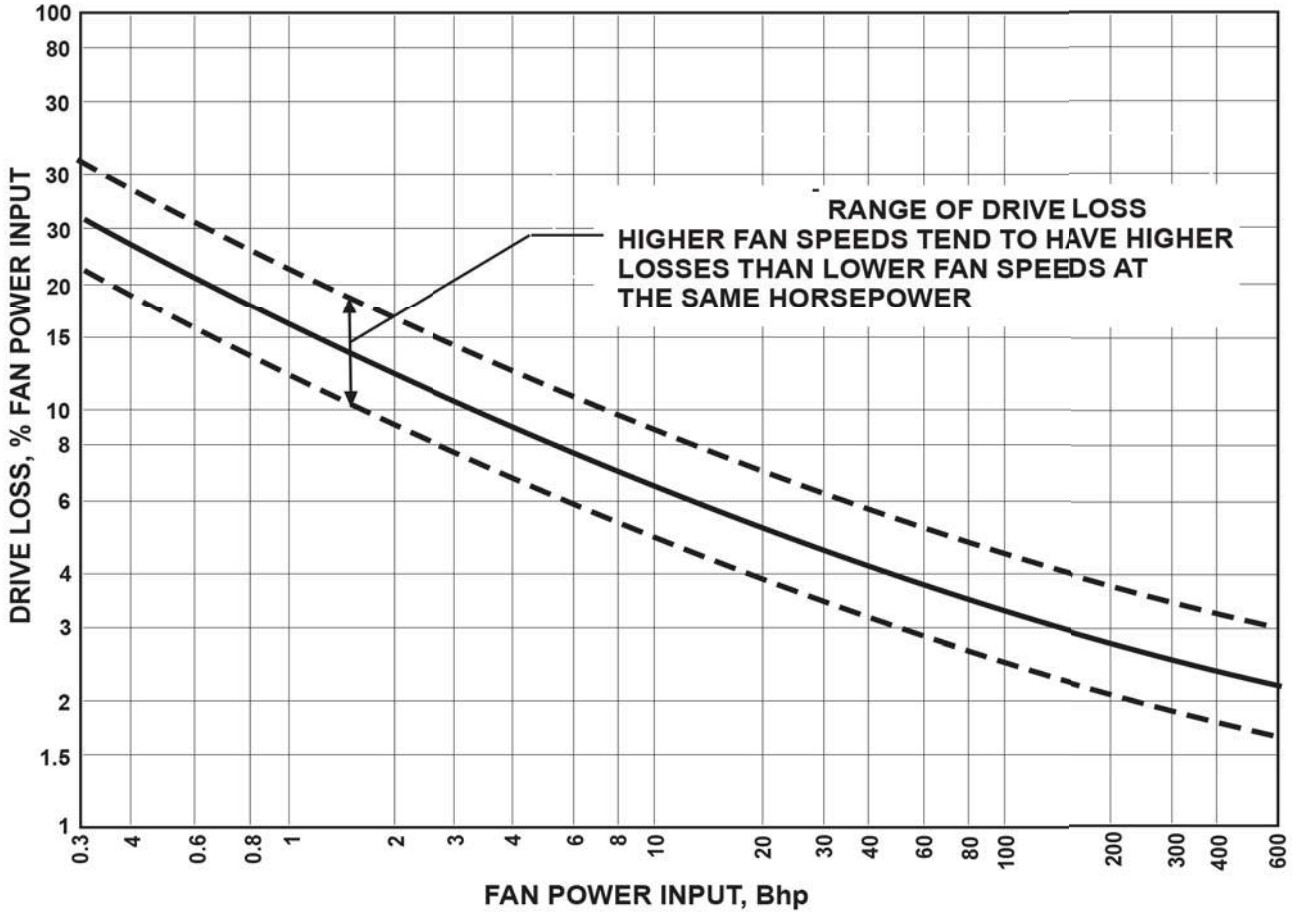
VARIABLE FREQUENCY DRIVES (INVERTERS) can be supplied (shipped loose) and are used to control fan speed. This is a great method to reduce electrical energy consumption and adjust the fan to the exact air flow requirements for various exhaust applications. The Electronic Brake feature can also be used to prevent the wheel-shaft assembly from rotating on a standby fan when a second fan is operational.

VIBRATION ISOLATION BASES are available to control the transmission of fan vibration to the surround structures or building and can be structural steel channel or concrete inertia baes with spring isolation and seismic snubbers.

VIBRATION ISOLATORS are available in variety of design using rubber or spring isolators.

VIBRATION SENSORS can be installed on the fan shaft bearings for convenient or continuous monitoring of vibration in the vertical, horizontal and axial direction.

AIR POLLUTION CONTROL
DRIVE LOSS



EXAMPLE:

- Fan power input, H =12.5 Bhp (from performance tables)
- From curve, drive loss = 6%
- Drive loss, H_L = .06 x 12.5 = .75hp
- Motor power output, Hmo = 12.5 + .75 = 13.25hp

(Based on data obtained from AMCA Applications Guide - Field Performance Measurement Publ.203)

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Air Pollution Control | FAN PERFORMANCE DATA

SWSI BI AF | HPCA 2000 SWSI
Fiberglass Centrifugal Fan
Classes I, II, III

Class I: 1808 RPM
Class II: 2531 RPM
Class III: 3074 RPM

Backward Inclined - Airfoil
Outlet Area: 2.36 Sq Ft

Wheel: 21.125" Diameter
Wheel Circumference: 5.53 Ft.

Maximum BHP $\left(\frac{\text{RPM}}{1000}\right)^3$ X .74

Static Pressure - Inches W.C.

VOL CFM	VEL FPM	0.5 RPM	0.5 BHP	1 RPM	1 BHP	1.5 RPM	1.5 BHP	2 RPM	2 BHP	2.5 RPM	2.5 BHP	3 RPM	3 BHP	3.5 RPM	3.5 BHP	4 RPM	4 BHP	4.5 RPM	4.5 BHP	5 RPM	5 BHP
1000	424	542	0.11																		
1100	466	554	0.12																		
1200	508	570	0.13	747	0.26																
1300	551	588	0.15	755	0.28																
1400	593	605	0.16	764	0.3																
1500	635	623	0.18	776	0.32	917	0.49														
1600	678	641	0.19	791	0.34	925	0.52														
1700	720	659	0.21	807	0.37	934	0.54	1057	0.75												
1800	762	678	0.23	824	0.4	946	0.57	1065	0.78												
1900	805	696	0.25	842	0.43	980	0.61	1073	0.81	1182	1.04										
2000	847	715	0.27	860	0.46	975	0.65	1083	0.85	1189	1.09	1290	1.34								
2200	932	753	0.32	895	0.53	1009	0.73	1109	0.94	1207	1.17	1304	1.43	1396	1.7						
2400	1017	793	0.37	932	0.6	1044	0.82	1141	1.05	1231	1.28	1321	1.54	1410	1.82	1495	2.11				
2600	1101	834	0.42	969	0.67	1080	0.92	1176	1.16	1261	1.4	1345	1.66	1428	1.94	1510	2.24	1589	2.56	1666	2.89
2800	1186	877	0.49	1006	0.75	1116	1.02	1211	1.28	1296	1.55	1374	1.81	1452	2.09	1529	2.39	1605	2.71	1680	3.05
3000	1271	922	0.56	1044	0.84	1152	1.13	1246	1.41	1331	1.69	1406	1.97	1480	2.26	1553	2.56	1625	2.87	1696	3.21
3200	1356	967	0.65	1083	0.94	1189	1.24	1282	1.55	1366	1.85	1442	2.15	1513	2.45	1582	2.75	1649	3.07	1717	3.4
3400	1440	1012	0.74	1122	1.04	1226	1.36	1319	1.69	1402	2.01	1478	2.33	1548	2.65	1614	2.97	1678	3.29	1742	3.63
3600	1525	1058	0.83	1163	1.15	1264	1.49	1355	1.84	1438	2.18	1513	2.52	1583	2.86	1649	3.2	1711	3.53	1772	3.87
3800	1610	1104	0.94	1206	1.28	1303	1.63	1393	2	1474	2.36	1549	2.72	1619	3.08	1684	3.44	1748	3.79	1808	4.14
4000	1694	1151	1.06	1249	1.41	1342	1.78	1430	2.16	1511	2.54	1585	2.92	1654	3.31	1719	3.69	1781	4.06	1839	4.43
4500	1906	1271	1.4	1361	1.81	1443	2.2	1526	2.62	1604	3.05	1677	3.48	1745	3.91	1809	4.34	1870	4.77	1927	5.19
5000	2118	1392	1.82	1475	2.27	1553	2.71	1626	3.15	1700	3.62	1771	4.1	1837	4.58	1900	5.06	1960	5.53	2017	6.01
5500	2330	1515	2.32	1591	2.81	1665	3.3	1732	3.78	1799	4.28	1867	4.8	1932	5.32	1993	5.85	2051	6.38	2108	6.9
6000	2542	1639	2.91	1710	3.45	1778	3.98	1843	4.52	1904	5.03	1966	5.58	2028	6.15	2088	6.72	2145	7.3	2200	7.87
6500	2753	1764	3.6	1830	4.18	1893	4.76	1956	5.34	2014	5.91	2070	6.48	2128	7.07	2185	7.82	2241	8.3	2295	8.93
7000	2965	1889	4.39	1951	5.03	2011	5.65	2070	6.27	2126	6.9	2180	7.51	2232	8.11	2285	8.75	2339	9.41	2391	10.1
7500	3177	2015	5.31	2073	5.99	2130	6.65	2185	7.32	2240	7.99	2292	8.66	2341	9.3	2390	9.96	2439	10.6	2488	11.3
8000	3389	2142	6.35	2197	7.06	2251	7.78	2303	8.48	2354	9.2	2404	9.92	2453	10.6	2499	11.3	2544	12	2590	12.7
8500	3601	2268	7.52	2321	8.27	2372	9.04	2422	9.79	2470	10.5	2518	11.3	2565	12.1	2610	12.8	2654	13.5	2696	14.3
9000	3812	2395	8.85	2446	9.62	2494	10.4	2542	11.2	2588	12	2633	12.8	2679	13.6	2723	14.5	2765	15.2	2806	16
9500	4024	2522	10.3	2571	11.1	2617	12	2662	12.8	2707	13.7	2750	14.5	2793	15.4	2836	16.2	2877	17.1	2918	17.9
10000	4236	2650	12	2697	12.8	2741	13.7	2784	14.6	2827	15.5	2868	16.3	2909	17.2	2950	18.1	2991	19	3030	19.9
10500	4448	2778	13.8	2823	14.6	2865	15.5	2906	16.5	2947	17.4	2987	18.4	3027	19.3	3065	20.2				
11000	4660	2907	15.8	2949	16.6	2990	17.6	3029	18.6	3068	19.6										
11500	4871	3035	18																		

VOL CFM	VEL FPM	6.0 RPM	6.0 BHP	7 RPM	7 BHP	8 RPM	8 BHP	9 RPM	9 BHP	10 RPM	10 BHP	11 RPM	11 BHP	12 RPM	12 BHP	13 RPM	13 BHP	14 RPM	14 BHP	16 RPM	16 BHP
3000	1271	1835	3.94																		
3200	1356	1851	4.14	1979	4.92																
3400	1440	1869	4.35	1995	5.15	2114	5.98														
3600	1525	1892	4.6	2011	5.39	2129	6.24	2242	7.13												
3800	1610	1919	4.88	2033	5.66	2146	6.51	2257	7.42	2364	8.36										
4000	1694	1949	5.18	2058	5.97	2166	6.81	2273	7.72	2379	8.68	2480	9.67	2580	10.7						
4500	1906	2035	6.03	2136	6.87	2233	7.73	2329	8.63	2425	9.58	2520	10.6	2615	11.7	2707	12.7	2797	13.9		
5000	2118	2124	6.96	2223	7.9	2316	8.83	2405	9.76	2492	10.7	2578	11.7	2665	12.8	2751	13.9	2836	15	3004	17.4
5500	2330	2212	7.95	2312	8.99	2404	10	2491	11.1	2574	12.1	2654	13.1	2733	14.2	2812	15.3	2891	16.4	3047	18.8
6000	2542	2304	9.01	2401	10.2	2493	11.3	2579	12.4	2661	13.6	2740	14.7	2815	15.8	2888	16.9	2961	18.1		
6500	2753	2397	10.2	2492	11.4	2583	12.6	2668	13.9	2750	15.1	2828	16.3	2902	17.6	2974	18.8	3044	20		
7000	2965	2491	11.4	2585	12.8	2674	14.1	2758	15.4	2839	16.8	2917	18.1	2991	19.4	3062	20.7				
7500	3177	2586	12.8	2679	14.2	2766	15.6	2850	17.1	2930	18.5	3006	19.9								
8000	3389	2684	14.2	2774	15.8	2860	17.3	2943	18.8	3021	20.3										
8500	3601	2784	15.8	2871	17.4	2956	19.1	3037	20.7												
9000	3812	2887	17.6	2970	19.3	3052	21														

Performance shown is for installation type D - Ducted inlet, Ducted outlet.
Power rating BHP does not include drive losses.
Performance ratings do not include the effects of appurtenances in the airstream.
The most efficient fan selection appears above the solid line.

CECO ENVIRONMENTAL

CECO HEE-Duall

Air Pollution Control | FAN PERFORMANCE DATA

SWSI BI AF | HPCA 2225 SWSI
Fiberglass Centrifugal Fan
Classes I, II, III

Class I: 1625 RPM
Class II: 2276 RPM
Class III: 2763 RPM

Backward Inclined - Airfoil
Outlet Area: 2.96 Sq Ft

Wheel: 23.5" Diameter
Wheel Circumference: 6.15 Ft.

Maximum BHP $\left(\frac{\text{RPM}}{1000}\right)^3$ X 1.48

Static Pressure - Inches W.C.

VOL	VEL	0.5		1		1.5		2		2.5		3		3.5		4		4.5		5	
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1200	405	459	0.12																		
1300	439	467	0.13																		
1400	472	476	0.14	641	0.29																
1500	506	485	0.15	642	0.31																
1600	540	494	0.16	645	0.32																
1700	574	504	0.18	650	0.34																
1800	607	515	0.19	657	0.36	785	0.56														
1900	641	525	0.21	665	0.38	788	0.58														
2000	675	536	0.22	671	0.4	792	0.6														
2100	709	547	0.24	684	0.42	797	0.63	907	0.86												
2200	742	558	0.25	693	0.45	804	0.65	910	0.89												
2300	776	570	0.27	703	0.47	812	0.69	914	0.92	1014	1.19										
2400	810	581	0.29	713	0.5	821	0.72	919	0.96	1015	1.23										
2500	843	593	0.31	723	0.53	831	0.75	925	0.99	1019	1.26	1110	1.55								
2600	877	605	0.33	734	0.55	840	0.79	933	1.03	1023	1.3	1112	1.6								
2700	911	616	0.35	744	0.58	849	0.82	942	1.07	1028	1.34	1115	1.64	1199	1.96						
2800	945	628	0.37	755	0.61	859	0.86	951	1.12	1035	1.39	1118	1.69	1201	2.01						
2900	978	641	0.39	766	0.64	869	0.9	960	1.16	1043	1.44	1123	1.74	1203	2.06	1282	2.4				
3000	1012	653	0.41	777	0.68	879	0.94	970	1.21	1052	1.49	1129	1.79	1207	2.12	1284	2.46	1360	2.82		
3200	1080	678	0.46	799	0.74	901	1.03	989	1.31	1070	1.6	1144	1.91	1217	2.23	1290	2.58	1362	2.95	1433	3.33
3400	1147	705	0.52	823	0.82	922	1.11	1009	1.41	1088	1.72	1162	2.04	1231	2.36	1300	2.71	1368	3.08	1438	3.47
3600	1215	733	0.58	846	0.89	943	1.21	1030	1.53	1108	1.84	1181	2.17	1249	2.51	1313	2.85	1376	3.23	1443	3.62
3800	1282	761	0.64	870	0.97	966	1.31	1051	1.64	1128	1.98	1199	2.32	1267	2.67	1331	3.02	1392	3.39	1453	3.78
4000	1350	790	0.71	894	1.06	988	1.41	1072	1.76	1149	2.11	1219	2.47	1285	2.83	1349	3.2	1409	3.58	1467	3.98
4500	1518	865	0.92	956	1.29	1047	1.7	1128	2.09	1202	2.48	1271	2.88	1335	3.28	1396	3.68	1454	4.09	1511	4.51
5000	1687	942	1.18	1023	1.57	1107	2.01	1186	2.46	1257	2.89	1324	3.33	1387	3.77	1447	4.21	1503	4.65	1557	5.1
5500	1856	1021	1.49	1094	1.9	1169	2.36	1245	2.86	1315	3.35	1380	3.83	1441	4.3	1500	4.79	1555	5.28	1608	5.78
6000	2024	1100	1.84	1169	2.29	1236	2.77	1306	3.3	1374	3.84	1438	4.38	1497	4.89	1554	5.41	1606	5.93	1661	6.47
7000	2362	1261	2.73	1322	3.27	1379	3.79	1437	4.36	1497	4.96	1557	5.59	1614	6.22	1668	6.85	1720	7.45	1770	8.06
8000	2699	1423	3.89	1479	4.5	1530	5.1	1580	5.71	1631	6.35	1682	7.03	1736	7.74	1787	8.46	1837	9.19	1886	9.91
9000	3037	1588	5.33	1638	6.04	1685	6.74	1731	7.39	1775	8.08	1820	8.8	1866	9.55	1912	10.3	1959	11.1	2005	11.9
10000	3374	1753	7.11	1799	7.93	1843	8.89	1885	9.46	1925	10.2	1965	10.9	2006	11.7	2047	12.6	2088	13.4	2130	14.3
11000	3711	1920	9.27	1961	10.2	2002	11	2041	11.9	2079	12.7	2116	13.5	2152	14.4	2189	15.2	2226	16.1	2263	17
12000	4049	2087	11.8	2125	12.9	2163	13.8	2200	14.7	2235	15.7	2270	16.6	2304	17.4	2337	18.3	2370	19.3	2404	20.2
13000	4386	2254	14.9	2291	16	2325	17.1	2360	18	2394	19	2426	20	2458	21	2489	22	2520	22.9	2551	23.9

VOL	VEL	6.0		7		8		9		10		11		12		13		15		17	
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
3400	1147																				
3600	1215	1571	4.45																		
3800	1282	1576	4.63	1696	5.52																
4000	1350	1583	4.81	1699	5.73	1813	6.68														
4500	1518	1616	5.36	1720	6.27	1823	7.27	1925	8.3	2027	9.37										
5000	1687	1661	6.02	1758	6.96	1851	7.93	1944	8.99	2038	10.1	2129	11.3	2221	12.4						
5500	1856	1708	6.74	1804	7.75	1893	8.77	1978	9.82	2063	10.9	2148	12.1	2233	13.3			2483	17.2	2642	19.9
6000	2024	1759	7.53	1851	8.6	1939	9.69	2023	10.8	2103	11.9	2180	13.1	2258	14.3	2336	15.6	2491	18.3	2643	21.1
7000	2362	1865	9.28	1955	10.5	2038	11.8	2118	13	2195	14.3	2270	15.5	2343	16.8	2412	18.1	2546	20.8	2679	23.7
8000	2699	1977	11.3	2063	12.7	2144	14.1	2223	15.5	2297	16.9	2369	18.3	2438	19.7	2505	21.2	2638	24.1	2758	27.1
9000	3037	2094	13.6	2177	15.2	2255	16.7	2331	18.3	2403	19.9	2474	21.4	2542	23	2607	24.6	2731	27.8		
10000	3374	2214	16.1	2294	17.6	2371	19.7	2444	21.4	2515	23.1	2582	24.9	2648	26.6	2712	28.4				
11000	3711	2339	18.9	2416	20.9	2490	22.9	2561	24.9	2630	26.8	2696	28.7	2760	30.6						
12000	4049	2472	22.2	2541	24.2	2612	26.4	2681	28.6	2748	30.7										
13000	4386	2613	26	2676	28.1	2739	30.3														

Performance shown is for installation type D - Ducted inlet, Ducted outlet.
Power rating BHP does not include drive losses.
Performance ratings do not include the effects of appurtenances in the airstream.
The most efficient fan selection appears above the solid line.

CECO ENVIRONMENTAL

CECO HEE-Duall

Air Pollution Control | FAN PERFORMANCE DATA

SWSI BI AF | HPCA 2450 SWSI
Fiberglass Centrifugal Fan
Classes I, II, III

Class I: 1476 RPM
Class II: 2067 RPM
Class III: 2510 RPM

Backward Inclined - Airfoil
Outlet Area: 3.55 Sq Ft

Wheel: 25.875" Diameter
Wheel Circumference: 6.77 Ft.

Maximum BHP $\left(\frac{\text{RPM}}{1000}\right)^3$ X 2.39

Static Pressure - Inches W.C.

VOL CFM	VEL FPM	0.5 RPM	0.5 BHP	1 RPM	1 BHP	1.5 RPM	1.5 BHP	2 RPM	2 BHP	2.5 RPM	2.5 BHP	3 RPM	3 BHP	3.5 RPM	3.5 BHP	4 RPM	4 BHP	4.5 RPM	4.5 BHP	5 RPM	5 BHP
1400	395																				
1500	423																				
1600	451																				
1700	479																				
1800	508																				
1900	536	466	0.18																		
2000	564	475	0.19																		
2100	592	483	0.2																		
2200	620	491	0.21																		
2300	649	498	0.22																		
2400	677	503	0.23																		
2500	705	507	0.24																		
2600	733	511	0.25	651	0.48																
2700	761	514	0.26	660	0.5																
2800	790	519	0.27	669	0.53																
2900	818	525	0.28	677	0.55																
3000	846	533	0.29	686	0.57																
3500	987	582	0.38	716	0.68	825	0.99														
4000	1128	635	0.49	736	0.77	863	1.17	950	1.51												
4500	1269	690	0.62	777	0.91	884	1.31	989	1.75	1064	2.12	1128	2.48								
5000	1410	745	0.78	828	1.1	908	1.45	1015	1.95	1104	2.43	1172	2.84	1231	3.24						
5500	1551	802	0.97	881	1.31	951	1.67	1033	2.12	1131	2.69	1211	3.21	1274	3.67	1329	4.11	1381	4.54		
6000	1692	859	1.18	935	1.56	1001	1.94	1067	2.36	1148	2.89	1238	3.53	1312	4.09	1371	4.6	1424	5.08	1473	5.56
6500	1833	918	1.43	990	1.85	1053	2.25	1112	2.67	1176	3.15	1255	3.77	1338	4.45	1408	5.08	1465	5.64	1516	6.17
7000	1974	977	1.72	1046	2.17	1107	2.6	1163	3.04	1218	3.51	1280	4.06	1355	4.74	1433	5.48	1500	6.16	1556	6.78
8000	2256	1096	2.4	1159	2.92	1217	3.43	1270	3.93	1318	4.43	1366	4.95	1416	5.52	1472	6.17	1538	6.95	1608	7.8
9000	2538	1217	3.26	1275	3.85	1329	4.43	1379	5	1426	5.56	1469	6.12	1512	6.69	1555	7.3	1600	7.95	1650	8.69
10000	2820	1340	4.31	1393	4.98	1443	5.63	1490	6.27	1535	6.89	1577	7.51	1617	8.14	1655	8.77	1693	9.42	1732	10.1
11000	3102	1463	5.58	1512	6.32	1559	7.04	1604	7.75	1646	8.45	1686	9.14	1725	9.82	1762	10.51	1797	11.2	1832	11.9
12000	3384	1587	7.09	1633	7.9	1677	8.69	1719	9.48	1759	10.25	1798	11.01	1835	11.76	1870	12.51	1905	13.25	1938	14
13000	3666	1712	8.87	1755	9.74	1796	10.6	1835	11.46	1873	12.31	1910	13.14	1946	13.96	1980	14.78	2014	15.59	2046	16.4
14000	3948	1837	10.9	1877	11.86	1916	12.8	1953	13.73	1989	14.65	2024	15.55	2059	16.45	2092	17.33	2124	18.21	2155	19.09
15000	4230	1963	13.3	2001	14.29	2037	15.3	2072	16.3	2106	17.29	2140	18.27	2173	19.24	2204	20.19	2235	21.14	2266	22.09
16000	4512	2089	16	2124	17.05	2159	18.12	2192	19.19	2225	20.25	2257	21.31	2288	22.35	2319	23.38	2348	24.4	2378	25.42

VOL CFM	VEL FPM	6 RPM	6 BHP	7 RPM	7 BHP	8 RPM	8 BHP	9 RPM	9 BHP	10 RPM	10 BHP	11 RPM	11 BHP	12 RPM	12 BHP	13 RPM	13 BHP	14 RPM	14 BHP
5000	1410																		
5500	1551																		
6000	1692																		
6500	1833	1607	7.2																
7000	1974	1651	7.93	1734	9.04														
8000	2256	1727	9.38	1819	10.75	1899	12.04	1972	13.32										
9000	2538	1768	10.5	1885	12.35	1978	14	2057	15.51	2128	16.97	2194	18.4	2256	19.83				
10000	2820	1817	11.6	1919	13.51	2030	15.63	2127	17.63	2207	19.42	2278	21.1	2343	22.72	2404	24.32	2462	25.91
11000	3102	1902	13.4	1977	15	2065	16.94	2165	19.21	2263	21.54	2348	23.69	2421	25.66	2487	27.52		
12000	3384	2002	15.5	2066	17.12	2133	18.86	2209	20.83	2296	23.15	2389	25.68	2477	28.2				
13000	3666	2107	18	2166	19.66	2225	21.38	2286	23.22	2352	25.23	2427	27.54	2510	30.14				
14000	3948	2215	20.8	2271	22.57	2326	24.34	2381	26.18	2437	28.11	2495	30.18						
15000	4230	2324	24	2379	25.83	2432	27.7	2483	29.59										
16000	4512	2434	27.4	2488	29.43														

Performance shown is for installation type D - Ducted inlet, Ducted outlet.
Power rating BHP does not include drive losses.
Performance ratings do not include the effects of appurtenances in the airstream.
The most efficient fan selection appears above the solid line.

CECO ENVIRONMENTAL

CECO HEE-Duall

Air Pollution Control | FAN PERFORMANCE DATA

SWSI BI AF | HPCA 2700 SWSI
Fiberglass Centrifugal Fan
Classes I, II, III

Class I: 1340 RPM
Class II: 1876 RPM
Class III: 2278 RPM

Backward Inclined - Airfoil
Outlet Area: 4.13 Sq Ft

Wheel: 28.5" Diameter
Wheel Circumference: 7.46 Ft.

Maximum BHP $\left(\frac{\text{RPM}}{1000}\right)^3$ X 3.61

Static Pressure - Inches W.C.

VOL CFM	VEL FPM	0.5 RPM	0.5 BHP	1 RPM	1 BHP	1.5 RPM	1.5 BHP	2 RPM	2 BHP	2.5 RPM	2.5 BHP	3 RPM	3 BHP	3.5 RPM	3.5 BHP	4 RPM	4 BHP	4.5 RPM	4.5 BHP	5 RPM	5 BHP
2000	484	393	0.2																		
2200	532	403	0.22	530	0.44																
2400	581	413	0.24	537	0.48																
2600	629	424	0.27	545	0.51	646	0.79														
2800	677	436	0.29	554	0.55	652	0.84														
3000	726	447	0.32	564	0.6	660	0.89	746	1.22												
3200	774	459	0.35	574	0.64	668	0.95	752	1.28												
3400	822	472	0.38	585	0.69	677	1.01	759	1.35	835	1.72										
3600	871	486	0.41	596	0.74	687	1.07	767	1.42	842	1.8	911	2.21								
3800	919	501	0.45	607	0.79	697	1.14	776	1.5	849	1.89	917	2.3								
4000	968	516	0.49	618	0.84	707	1.21	785	1.58	857	1.98	924	2.4	988	2.84						
4500	1088	555	0.6	647	0.98	735	1.39	811	1.8	879	2.23	943	2.66	1005	3.13	1065	3.61	1119	4.12		
5000	1209	597	0.74	681	1.14	763	1.58	838	2.04	905	2.5	967	2.97	1025	3.45	1081	3.95	1135	4.48	1187	5.02
5500	1330	639	0.9	718	1.32	792	1.79	865	2.29	932	2.8	992	3.3	1049	3.82	1105	4.35	1155	4.88	1205	5.45
6000	1451	682	1.08	756	1.53	825	2.03	893	2.56	959	3.1	1019	3.66	1075	4.21	1123	4.77	1178	5.34	1228	5.92
6500	1572	726	1.29	796	1.77	862	2.29	924	2.85	967	3.43	1047	4.02	1102	4.62	1151	5.22	1203	5.83	1250	6.45
7000	1693	770	1.52	838	2.05	899	2.59	958	3.17	1016	3.78	1075	4.41	1130	5.05	1181	5.7	1229	6.34	1278	7
7500	1814	815	1.79	880	2.35	938	2.92	994	3.53	1049	4.17	1103	4.82	1158	5.5	1209	6.13	1257	6.88	1302	7.57
8000	1935	861	2.09	923	2.69	979	3.29	1032	3.92	1084	4.58	1134	5.27	1185	5.98	1238	6.6	1284	7.44	1330	8.18
8500	2056	908	2.42	966	3.06	1020	3.7	1071	4.35	1120	5.04	1168	5.76	1216	6.49	1261	7.24	1312	8.01	1357	8.79
9000	2177	954	2.79	1010	3.47	1062	4.14	1111	4.82	1158	5.53	1204	6.28	1249	7.04	1291	7.83	1340	8.62	1386	9.44
9500	2298	1001	3.2	1054	3.92	1105	4.63	1152	5.34	1197	6.07	1241	6.84	1285	7.63	1327	8.45	1370	9.28	1413	10.1
10000	2419	1048	3.66	1098	4.41	1148	5.16	1193	5.91	1237	6.66	1279	7.45	1321	8.27	1362	9.11	1403	9.97	1443	10.8
11000	2661	1143	4.69	1189	5.52	1235	6.35	1278	7.17	1319	7.99	1359	8.83	1397	9.68	1433	10.6	1473	11.5	1510	12.4
12000	2903	1239	5.9	1282	6.82	1323	7.73	1365	8.63	1403	9.52	1441	10.4	1477	11.3	1513	12.3	1548	13.2	1583	14.2
13000	3144	1335	7.31	1375	8.33	1413	9.31	1452	10.3	1489	11.3	1525	12.2	1559	13.2	1593	14.2	1626	15.2	1658	16.2
14000	3386	1431	8.95	1469	10.1	1505	11.1	1541	12.2	1577	13.2	1611	14.3	1644	15.3	1675	16.4	1707	17.4	1739	18.5
15000	3628	1528	10.8	1563	12.1	1598	13.2	1631	14.3	1665	15.34	1698	16.6	1729	17.7	1760	18.8	1790	19.9	1819	21.1
16000	3870	1625	13	1659	14.3	1691	15.5	1723	16.7	1753	17.9	1785	19.1	1816	20.3	1846	21.5	1874	22.7	1903	23.9
17000	4112	1722	15.4	1754	16.8	1785	18.1	1815	19.4	1844	20.7	1874	21.9	1904	23.2	1932	24.5	1960	25.8	1987	27
18000	4354	1820	18.1	1851	19.5	1879	21	1908	22.3	1936	23.7	1963	25.1	1992	26.4	2020	27.8	2047	29.1	2073	30.5
19000	4596	1917	21.1	1947	22.6	1975	24.2	2002	25.6	2029	27.1	2055	28.5	2081	29.9	2108	31.4	2134	32.8	2160	34.2
20000	4838	2015	24.4	2043	26	2070	27.7	2096	29.3	2122	30.7	2147	32.3	2172	33.8	2197	35.3	2222	36.8	2247	38.3
21000	5079	2113	28.1	2140	29.8	2166	31.5	2191	33.2	2215	34.8	2240	36.4	2263	37.9						

VOL CFM	VEL FPM	6.0 RPM	6.0 BHP	7 RPM	7 BHP	8 RPM	8 BHP	9 RPM	9 BHP	10 RPM	10 BHP	11 RPM	11 BHP	12 RPM	12 BHP	14 RPM	14 BHP	16 RPM	16 BHP	18 RPM	18 BHP
5500	1330	1301	6.63	1392	7.88																
6000	1451	1319	7.13	1408	8.42	1492	9.77														
6500	1572	1340	7.69	1426	9.01	1508	10.4	1586	11.8												
7000	1693	1364	8.32	1447	9.67	1526	11.1	1603	12.6	1677	14.1	1748	15.7								
7500	1814	1389	8.79	1470	10.4	1547	11.8	1622	13.3	1694	14.9	1764	16.5	1831	18.2						
8000	1935	1415	9.65	1495	11.1	1571	12.7	1643	14.2	1713	15.8	1782	17.5	1848	19.2	1975	22.7				
8500	2056	1442	10.4	1521	11.9	1595	13.5	1667	15.1	1735	16.8	1802	18.5	1866	20.2	1991	23.8	2110	27.7		
9000	2177	1470	11.1	1548	12.8	1621	14.4	1691	16.1	1759	17.8	1824	19.5	1887	21.3	2009	25	2126	28.9	2237	33
9500	2298	1496	11.8	1576	13.6	1648	15.4	1717	17.1	1784	18.9	1848	20.7	1909	22.5	2029	26.3	2144	30.2	2253	34.4
10000	2419	1526	12.6	1603	14.5	1676	16.3	1744	18.2	1809	20	1872	21.9	1934	23.8	2050	27.6	2162	31.6	2271	35.8
11000	2661	1584	14.3	1659	16.3	1731	18.3	1799	20.3	1863	22.4	1925	24.4	1984	26.4	2098	30.6	2206	34.8		
12000	2903	1651	16.2	1718	18.3	1787	20.4	1855	22.6	1919	24.8	1980	27	2039	29.3	2150	33.7	2255	38.2		
13000	3144	1723	18.4	1786	20.6	1848	22.8	1911	25.1	1975	27.4	2035	29.8	2094	32.2	2204	37				
14000	3386	1798	20.7	1858	23	1916	25.4	1974	27.8	2032	30.3	2091	32.7	2150	35.3	2259	40.4				
15000	3628	1877	23.4	1933	25.7	1989	28.2	2043	30.8	2097	33.3	2151	35.9	2208	38.6						
16000	3870	1957	26.3	2011	28.8	2064	31.3	2116	34	2168	36.7	2218	39.4	2269	42.2						
17000	4112	2040	29.6	2091	32.2	2141	34.8	2191	37.5	2241	40.3										
18000	4354	2124	33.1	2173	35.9	2221	38.6	2269	41.4												

Performance shown is for installation type D - Ducted inlet, Ducted outlet.
Power rating BHP does not include drive losses.
Performance ratings do not include the effects of appurtenances in the airstream.
The most efficient fan selection appears above the solid line.

CECO ENVIRONMENTAL

CECO HEE-Duall

Air Pollution Control | FAN PERFORMANCE DATA

SWSI BI AF | HPCA 3000 SWSI
Fiberglass Centrifugal Fan
Classes I, II, III

Class I: 1205 RPM
Class II: 1688 RPM
Class III: 2049 RPM

Backward Inclined - Airfoil
Outlet Area: 5.11 Sq Ft

Wheel: 31.687" Diameter
Wheel Circumference: 8.29 Ft.

Maximum BHP $\left(\frac{\text{RPM}}{1000}\right)^3$ X 6.13

Static Pressure - Inches W.C.

VOL	VEL	0.5		1		1.5		2		2.5		3		3.5		4		4.5		5	
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
2400	470	366	0.25																		
2600	509	375	0.27	486	0.53																
2800	548	384	0.3	491	0.56																
3000	587	394	0.33	499	0.61	591	0.93														
3500	685	421	0.41	522	0.73	604	1.06	683	1.44												
4000	783	450	0.5	545	0.85	626	1.23	696	1.61	766	2.04										
4500	881	478	0.6	571	1	649	1.41	718	1.83	780	2.26	841	2.74								
5000	978	502	0.69	596	1.16	673	1.61	741	2.08	801	2.54	856	3.02	912	3.53						
5500	1076	529	0.8	627	1.35	698	1.83	763	2.33	824	2.85	879	3.36	929	3.87	980	4.43	1030	5.02	1080	5.65
6000	1174	561	0.93	657	1.56	725	2.07	788	2.6	847	3.16	901	3.72	952	4.28	999	4.85	1045	5.43	1091	6.06
6500	1272	594	1.09	682	1.74	754	2.35	814	2.91	871	3.5	924	4.1	975	4.71	1021	5.31	1065	5.92	1107	6.53
7000	1370	628	1.28	707	1.92	784	2.65	841	3.24	896	3.86	948	4.5	997	5.15	1044	5.81	1088	6.46	1130	7.11
7500	1468	663	1.49	732	2.12	813	2.95	871	3.6	922	4.25	973	4.93	1021	5.61	1067	6.3	1111	7.01	1152	7.71
8000	1566	699	1.73	762	2.37	838	3.22	900	4.01	951	4.69	998	5.37	1046	6.1	1090	6.83	1134	7.57	1176	8.33
9000	1761	772	2.28	827	2.97	887	3.78	956	4.79	1010	5.66	1055	6.42	1098	7.18	1141	8	1182	8.81	1222	9.63
10000	1957	845	2.95	895	3.7	946	4.51	1004	5.51	1065	6.64	1115	7.61	1156	8.47	1195	9.31	1233	10.16	1272	11.08
11000	2153	920	3.75	966	4.58	1011	5.43	1059	6.37	1114	7.54	1169	8.78	1216	9.89	1255	10.83	1291	11.76	1326	12.68
12000	2348	995	4.7	1038	5.61	1079	6.51	1121	7.46	1166	8.54	1218	9.85	1269	11.21	1314	12.45	1351	13.53	1385	14.65
13000	2544	1070	5.8	1111	6.79	1150	7.76	1188	8.76	1227	9.83	1269	11.03	1317	12.47	1365	13.94	1406	15.33	1445	16.58
14000	2740	1146	7.06	1185	8.14	1221	9.19	1256	10.25	1292	11.34	1329	12.52	1368	13.84	1413	15.38	1458	16.98	1499	18.51
15000	2935	1222	8.5	1259	9.68	1294	10.81	1327	11.93	1360	13.07	1393	14.27	1428	15.55	1465	16.97	1508	18.6	1549	20.32
16000	3131	1299	10.14	1334	11.41	1367	12.62	1398	13.82	1429	15.02	1460	16.25	1491	17.55	1524	18.92	1559	20.43	1597	22.12
17000	3327	1375	11.98	1409	13.35	1441	14.65	1470	15.92	1500	17.19	1529	18.48	1558	19.8	1587	21.18	1618	22.65	1651	24.23
18000	3523	1452	14.04	1485	15.5	1515	16.89	1543	18.25	1571	19.59	1599	20.94	1626	22.31	1654	23.72	1682	25.19	1711	26.74
19000	3718	1529	16.32	1560	17.89	1589	19.37	1617	20.81	1644	22.23	1670	23.65	1696	25.08	1722	26.53	1748	28.03	1774	29.59
20000	3914	1606	18.85	1636	20.52	1664	22.1	1691	23.62	1717	25.12	1742	26.61	1766	28.11	1791	29.62	1816	31.16	1840	32.74
21000	4110	1683	21.64	1712	23.4	1739	25.08	1765	26.69	1790	28.28	1814	29.84	1838	31.41	1861	32.98	1885	34.58	1908	36.2
22000	4305	1761	24.69	1789	26.56	1815	28.33	1840	30.04	1864	31.71	11887	33.35	1910	34.99	1932	36.64	1955	38.28	1977	39.98
23000	4501	1838	28.03	1865	29.99	1891	31.86	1915	33.66	1938	35.42	1960	37.15	1982	38.87	2004	40.59	2026	42.3	2047	44.04
24000	4697	1916	31.65	1942	33.72	1966	35.69	1990	37.58	2012	39.43	2034	41.25								
25000	4892	1993	35.6	2019	37.76	2043	39.82														
26000	5088																				
27000	5284																				

VOL	VEL	6.0		7		8		9		10		11		12		14		16		17	
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
6500	1272	1193	7.89	1278	9.36																
7000	1370	1209	8.44	1288	9.91	1367	11.49														
7500	1468	1230	9.11	1303	10.55	1378	12.13	1451	13.82												
8000	1566	1252	9.82	1324	11.32	1393	12.87	1462	14.55	1531	16.33	1599	18.19								
9000	1761	1299	11.32	1369	12.99	1435	14.66	1498	16.35	1559	18.09	1621	19.96	1683	21.92						
10000	1957	1345	12.89	1415	14.73	1481	16.63	1543	18.48	1602	20.34	1659	22.22	1713	24.12	1824	28.28	1935	32.75	1989	35.09
11000	2153	1396	14.65	1463	16.63	1527	18.65	1590	20.74	1648	22.78	1704	24.82	1757	26.87	1858	30.98	1959	35.43	2010	37.78
12000	2348	1450	16.58	1514	18.72	1576	20.87	1635	23.06	1693	25.28	1750	27.57	1803	29.8	1903	34.26	1998	38.77		
13000	2544	1509	18.8	1568	20.98	1628	23.31	1686	25.63	1741	27.98	1795	30.37	1848	32.79	1949	37.68	2042	42.51		
14000	2740	1568	21.18	1627	23.57	1682	25.93	1736	28.31	1792	30.91	1844	33.43	1895	35.98	1994	41.17				
15000	2935	1625	23.58	1687	26.34	1741	28.9	1793	31.43	1843	33.97	1896	36.74	1946	39.42	2041	44.87				
16000	3131	1676	25.79	1745	29.17	1801	32.07	1852	34.8	1901	37.49	1949	40.2	1995	42.94						
17000	3327	1724	27.94	1796	31.78	1859	35.32	1912	38.37	1961	41.28	2007	44.15								
18000	3523	1774	30.2	1845	34.29	1911	38.32	1970	42.03	2020	45.26										
19000	3718	1830	32.94	1893	36.83	1960	41.2	2023	45.42												
20000	3914	1892	36.08	1947	39.77	2009	44.09														
21000	4110	1956	39.57	2006	43.2																
22000	4305	2022	43.4																		
23000	4501																				

Performance shown is for installation type D - Ducted inlet, Ducted outlet.
Power rating BHP does not include drive losses.
Performance ratings do not include the effects of appurtenances in the airstream.
The most efficient fan selection appears above the solid line.

CECO ENVIRONMENTAL

CECO HEE-Duall

Air Pollution Control | FAN PERFORMANCE DATA

SWSI BI AF | HPCA 3300 SWSI
Fiberglass Centrifugal Fan
Classes I, II, III

Class I: 1097 RPM
Class II: 1536 RPM
Class III: 1865 RPM

Backward Inclined - Airfoil
Outlet Area: 6.08 Sq Ft

Wheel: 34.812" Diameter
Wheel Circumference: 9.11 Ft.

Maximum BHP $\left(\frac{\text{RPM}}{1000}\right)^3$ X 9.81

Static Pressure - Inches W.C.

VOL	VEL	0.5		1		1.5		2		2.5		3		3.5		4		4.5		5	
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
3000	493	337	0.31	440	0.61																
3500	576	354	0.38	451	0.7																
4000	658	373	0.45	467	0.82	545	1.21														
4500	740	395	0.54	485	0.95	559	1.37	628	1.82												
5000	822	418	0.64	503	1.08	576	1.54	639	2.01	700	2.53										
6000	987	456	0.83	543	1.39	611	1.93	673	2.49	728	3.05	779	3.62	830	4.25	880	4.92				
7000	1151	499	1.06	587	1.78	649	2.38	708	3.01	763	3.67	812	4.32	858	4.97	901	5.63	945	6.35	988	7.1
8000	1316	548	1.38	627	2.16	694	2.93	746	3.6	798	4.33	846	5.07	893	5.82	935	6.58	975	7.31	1013	8.05
9000	1480	601	1.75	664	2.54	738	3.53	790	4.32	837	5.06	883	5.9	927	6.72	970	7.57	1010	8.41	1047	9.24
10000	1645	655	2.26	710	3.04	775	4.08	835	5.13	881	5.98	923	6.82	965	7.73	1005	8.63	1044	9.55	1082	10.5
11000	1809	710	2.84	760	3.67	813	4.54	875	5.88	926	6.97	967	7.91	1005	8.84	1044	9.83	1081	10.81	1117	11.81
12000	1974	766	3.51	811	4.41	858	5.39	912	6.6	967	7.95	1012	9.1	1049	10.13	1085	11.14	1119	12.16	1155	13.27
13000	2138	822	4.3	865	5.27	906	6.28	951	7.42	1004	8.85	1054	10.28	1094	11.52	1130	12.64	1163	13.74	1195	14.83
14000	2303	878	5.19	919	6.25	957	7.31	997	8.45	1041	9.78	1091	11.37	1137	12.9	1175	14.24	1208	15.48	1239	16.64
15000	2467	935	6.21	973	7.35	1010	8.48	1046	9.65	1084	10.94	1127	12.46	1174	14.18	1216	15.82	1253	17.3	1284	18.69
16000	2632	992	7.37	1029	8.59	1063	9.79	1097	11.01	1132	12.31	1169	13.74	1211	15.44	1254	17.27	1294	19.02	1329	20.63
17000	2796	1049	8.66	1084	9.98	1117	11.25	1149	12.53	1181	13.86	1214	15.28	1250	16.86	1290	18.71	1331	20.66	1369	22.53
18000	2961	1107	10.1	1140	11.52	1172	12.87	1202	14.21	1232	15.59	1263	17.03	1295	18.58	1329	20.29	1367	22.29	1406	24.34
19000	3125	1164	11.71	1197	13.21	1227	14.65	1256	16.06	1284	17.5	1313	18.97	1342	20.53	1373	22.19	1406	24.03	1442	26.14
20000	3289	1222	13.47	1253	15.08	1282	16.6	1310	18.09	1337	19.59	1364	21.11	1392	22.69	1420	24.35	1449	26.13	1481	28.09
21000	3454	1280	15.42	1310	17.12	1338	18.73	1365	20.3	1391	21.87	1417	23.45	1443	25.07	1469	26.75	1496	28.52	1524	30.41
22000	3618	1338	17.55	1367	19.34	1394	21.04	1420	22.7	1445	24.34	1470	25.99	1494	27.66	1519	29.38	1544	31.18	1570	33.02
23000	3783	1396	19.87	1424	21.76	1451	23.56	1476	25.3	1500	27.02	1523	28.73	1547	30.46	1571	32.23	1594	34.04	1618	35.91
24000	3947	1454	22.39	1481	24.38	1507	26.27	1531	28.1	1555	29.9	1578	31.69	1600	33.49	1623	35.3	1645	37.16	1669	39.06
25000	4112	1512	25.12	1539	27.22	1564	29.2	1587	31.12	1610	33	1632	34.87	1654	36.73	1676	38.61	1697	40.51	1719	42.46
26000	4276	1570	28.07	1596	30.27	1621	32.35	1643	34.36	1666	36.33	1687	38.27	1708	40.21	1729	42.15	1750	44.12	1771	46.1
27000	4441	1629	31.25	1654	33.55	1677	35.73	1700	37.83	1721	39.89	1742	41.91	1763	43.93	1783	45.94	1803	47.98	1823	50.01
28000	4605	1687	34.67	1712	37.07	1735	39.34	1756	41.54	1777	43.69	1798	45.8	1818	47.89	1837	49.98	1857	52.07		
29000	4770	1746	38.33	1769	40.83	1792	43.2	1813	45.5	1834	47.73	1853	49.93								
30000	4934	1804	42.25	1827	44.85	1849	47.32														
31000	5099	1863	46.42																		
32000	5263																				

VOL	VEL	6.0		7		8		9		10		11		12		14		16		17	
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
8000	1316	1089	9.65	1165	11.46																
9000	1480	1118	10.92	1185	12.67	1253	1457	1320	16.6												
10000	1645	1152	12.35	1217	14.22	1277	1609	1339	18.11	1400	20.26	1460	22.52								
11000	1809	1187	13.88	1251	15.91	1311	1796	1368	20.02	1423	22.11	1479	24.36	1534	26.73	1643	32.37				
12000	1974	1222	15.44	1285	17.66	1346	1993	1402	22.15	1456	24.39	1507	26.65	1557	28.94	1664	35	1761	40.26	1808	42.93
13000	2138	1260	17.18	1321	19.53	1380	2193	1437	24.4	1490	26.81	1541	29.22	1590	31.65	1689	37.72	1783	43.29	1828	46.11
14000	2303	1299	19.01	1359	21.56	1416	2409	1471	26.61	1526	29.34	1576	31.93	1624	34.53	1718	40.55	1809	46.4	1853	49.38
15000	2467	1342	21.12	1398	23.67	1455	2642	1508	29.13	1560	31.87	1610	34.67	1659	37.53	1750	43.53	1838	49.65		
16000	2632	1387	23.41	1441	26.1	1493	2882	1546	31.77	1597	34.65	1645	37.57	1693	40.47	1783	46.68				
17000	2796	1432	25.81	1486	28.73	1536	3159	1584	34.48	1635	37.62	1683	40.67	1729	43.76	1818	50.02				
18000	2961	1475	28.22	1531	31.5	1580	3456	1628	37.59	1674	40.65	1722	43.98	1767	47.2	1854	53.55				
19000	3125	1514	30.45	1575	34.36	1625	37.7	1672	40.93	1717	44.12	1760	47.35	1806	50.86						
20000	3289	1550	32.6	1615	37.03	1671	4101	1717	44.44	1761	47.83	1804	51.19	1845	54.58						
21000	3454	1587	34.78	1653	39.57	1712	44.1	1762	48.07	1806	51.72	1848	55.28								
22000	3618	1626	37.16	1689	42.08	1750	4705	1805	51.68	1851	55.75										
23000	3783	1669	39.96	1725	44.63	1787	4992	1844	55.05												
24000	3947	1715	43.08	1766	47.56	1823	5281														
25000	4112	1763	46.51	1810	50.9	1861	5584														
26000	4276	1813	50.21	1856	54.59																
27000	4441	1863	54.2																		

Performance shown is for installation type D - Ducted inlet, Ducted outlet.
Power rating BHP does not include drive losses.
Performance ratings do not include the effects of appurtenances in the airstream.
The most efficient fan selection appears above the solid line.

CECO ENVIRONMENTAL

CECO HEE-Duall

Air Pollution Control | FAN PERFORMANCE DATA

SWSI BI AF | HPCA 3650 SWSI
Fiberglass Centrifugal Fan
Classes I, II, III

Class I: 992 RPM
Class II: 1389 RPM
Class III: 1687 RPM

Backward Inclined - Airfoil
Outlet Area: 7.62 Sq Ft

Wheel: 38.5" Diameter
Wheel Circumference: 10.07 Ft.

Maximum BHP $\left(\frac{\text{RPM}}{1000}\right)^3$ X 16.2

Static Pressure - Inches W.C.

VOL	VEL	0.5		1		1.5		2		2.5		3		3.5		4		4.5		5	
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
4000	525	313	0.42	402	0.81																
5000	657	341	0.57	425	1.03	494	1.51														
6000	788	374	0.76	451	1.29	516	1.85	575	2.41	631	3.05										
7000	920	403	0.95	480	1.59	543	2.22	600	2.9	650	3.53	698	4.23	746	5						
8000	1051	432	1.15	512	1.95	571	2.65	625	3.38	675	4.13	720	4.87	762	5.63	804	6.45	846	7.33	889	8.26
9000	1182	467	1.42	545	2.35	601	3.14	653	3.94	700	4.76	746	5.61	787	6.44	826	7.29	863	8.14	900	9.07
10000	1314	504	1.76	573	2.72	634	3.71	682	4.55	728	5.45	771	6.37	813	7.31	851	8.24	887	9.17	921	10.11
11000	1445	543	2.17	601	3.1	667	4.31	714	5.28	756	6.21	799	7.21	838	8.21	877	9.25	913	10.27	947	11.29
12000	1576	583	2.65	634	3.59	695	4.86	747	6.07	789	7.09	827	8.11	866	9.21	903	10.3	938	11.38	973	12.55
13000	1708	623	3.2	670	4.19	722	5.4	778	6.86	822	8.06	859	9.16	894	10.27	931	11.46	965	12.63	999	13.79
14000	1839	664	3.82	708	4.88	752	6.06	806	7.59	855	9.08	892	10.31	927	11.49	959	12.68	993	13.96	1025	15.15
15000	1971	706	4.54	746	5.66	787	6.86	833	8.31	883	10.02	926	11.54	960	12.83	992	14.09	1022	15.36	1054	16.73
16000	2102	747	5.34	786	6.54	823	7.77	863	9.17	910	10.91	956	12.69	993	14.23	1025	15.62	1055	16.97	1084	18.32
17000	2233	789	6.23	826	7.51	861	8.8	897	10.2	938	11.84	983	13.78	1024	15.62	1058	17.22	1089	18.68	1118	20.12
18000	2365	831	7.23	866	8.59	899	9.94	933	11.37	969	12.95	1010	14.86	1052	16.91	1090	18.82	1121	20.46	1149	22.04
19000	2496	873	8.33	907	9.78	939	11.2	970	12.67	1003	14.24	1039	16.03	1079	18.16	1118	20.31	1153	22.3	1183	24.05
20000	2627	915	9.55	948	11.09	978	12.58	1008	14.1	1039	15.69	1071	17.44	1106	19.45	1145	21.74	1182	23.98	1215	26.07
21000	2759	958	10.88	989	12.51	1018	14.08	1047	15.66	1076	17.29	1105	19.03	1137	20.96	1172	23.2	1209	25.6	1243	27.94
22000	2890	1000	12.33	1031	14.06	1059	15.71	1086	17.35	1113	19.04	1141	20.8	1170	22.69	1201	24.79	1236	27.22	1271	29.74
23000	3022	1043	13.92	1072	15.74	1100	17.47	1126	19.19	1152	20.93	1178	22.72	1205	24.62	1233	26.88	1264	29.64	1295	31.54
24000	3153	1085	15.64	1114	17.55	1141	19.37	1166	21.16	1191	22.96	1216	24.81	1241	26.72	1267	28.75	1295	30.95	1325	33.39
25000	3284	1128	17.5	1156	19.51	1182	21.42	1206	23.29	1230	25.16	1254	27.05	1278	29	1303	31.04	1329	33.21	1356	35.55
26000	3416	1171	19.5	1198	21.61	1223	23.61	1247	25.56	1270	27.5	1293	29.46	1316	31.45	1340	33.52	1364	35.68	1388	37.89
27000	3547	1214	21.66	1240	23.87	1264	25.96	1288	28	1310	30.01	1333	32.03	1355	34.08	1377	36.18	1400	38.36	1423	40.65
28000	3678	1256	23.98	1282	26.29	1306	28.47	1329	30.59	1351	32.68	1372	34.77	1394	36.88	1415	39.03	1437	41.24	1459	43.53
29000	3810	1299	26.46	1325	28.87	1348	31.15	1370	33.35	1391	35.52	1412	37.69	1433	39.86	1454	42.08	1474	44.31	1495	46.62
30000	3941	1342	29.11	1367	31.62	1390	33.99	1411	36.29	1432	38.54	1453	40.78	1473	43.02	1492	45.29	1512	47.58	1533	49.93
32000	4204	1429	34.95	1452	37.66	1474	40.22	1494	42.7	1514	45.12	1534	47.52	1553	49.9	1571	52.29	1590	54.7	1609	57.15
34000	4467	1515	41.54	1537	44.44	1558	47.2	1578	49.87	1597	52.47	1615	55.03	1634	57.57	1651	60.1	1669	62.64	1687	65.2
36000	4729	1601	48.92	1623	52.03	1643	54.99	1662	57.84	1680	60.62										

VOL	VEL	6.0		7		8		9		10		11		12		14		16		17	
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
10000	1314	989	12.07	1056	14.25																
11000	1445	1011	13.35	1071	15.48	1133	17.81	1193	20.3												
12000	1576	1036	14.77	1094	17.01	1150	19.3	1207	21.78	1263	24.4	1318	27.16								
13000	1708	1062	16.27	1120	18.66	1174	21.11	1226	23.53	1278	26.15	1330	28.91	1381	31.6						
14000	1839	1087	17.78	1146	20.43	1200	23.02	1251	25.63	1300	28.27	1347	30.95	1396	33.84	1492	39.98				
15000	1971	1114	19.43	1171	22.18	1226	25.03	1276	27.81	1325	30.6	1371	33.41	1415	36.2	1505	42.33	1597	50.21	1639	53.52
16000	2102	1142	21.19	1197	24.08	1250	27.03	1302	30.07	1350	33.03	1396	36.01	1440	39	1524	45.03	1614	53.24	1655	56.72
17000	2233	1170	23	1226	26.11	1277	29.19	1327	32.26	1376	35.56	1422	38.71	1465	41.87	1549	48.22	1633	56.36	1673	59.98
18000	2365	1202	25.08	1255	28.27	1305	31.48	1354	34.75	1401	38.07	1448	41.51	1491	44.85	1574	51.53	1654	59.58		
19000	2496	1235	27.31	1284	30.51	1334	33.93	1382	37.32	1428	40.77	1473	44.27	1517	47.92	1599	54.96	1677	62.93		
20000	2627	1269	29.65	1317	33.03	1363	36.41	1411	40.05	1456	43.63	1499	47.26	1542	50.94	1625	58.5				
21000	2759	1302	21.08	1350	35.7	1395	39.24	1439	42.8	1485	46.65	1527	50.42	1569	54.22	1650	61.97				
22000	2890	1333	34.48	1383	38.48	1428	42.23	1471	45.93	1522	50.14	1556	53.74	1597	57.68	1676	65.69				
23000	3022	1362	36.72	1417	41.38	1462	45.35	1504	49.24	1513	49.67	1584	57.03	1626	61.31						
24000	3153	1389	38.88	1447	44.07	1495	48.57	1537	52.71	1545	53.11	1616	60.8	1654	64.89						
25000	3284	1416	41.03	1476	46.67	1527	51.84	1570	56.29	1577	56.76	1649	64.78	1686	68.99						
26000	3416	1443	43.22	1503	49.19	1557	54.88	1604	60.04	1610	60.57	1682	68.94								
27000	3547	1473	45.69	1530	51.7	1585	57.82	1635	63.53	1644	64.51										
28000	3678	1505	48.48	1556	54.24	1612	60.69	1663	66.89	1677	68.56										
29000	3810	1539	51.55	1586	57.08	1639	63.56														
30000	3941	1574	54.86	1617	60.27	1666	66.47														
32000	4204	1647	62.19																		

Performance shown is for installation type D - Ducted inlet, Ducted outlet.
Power rating BHP does not include drive losses.
Performance ratings do not include the effects of appurtenances in the airstream.
The most efficient fan selection appears above the solid line.

CECO ENVIRONMENTAL

CECO HEE-Duall

Air Pollution Control | FAN PERFORMANCE DATA

SWSI BI AF | HPCA 4025 SWSI
Fiberglass Centrifugal Fan
Classes I, II, III

Class I: 899 RPM
Class II: 1258 RPM
Class III: 1528 RPM

Backward Inclined - Airfoil
Outlet Area: 9.28 Sq Ft

Wheel: 42.5" Diameter
Wheel Circumference: 11.12 Ft.

Maximum BHP $\left(\frac{\text{RPM}}{1000}\right)^3$ X 26.6

Static Pressure - Inches W.C.

VOL	VEL	0.5		1		1.5		2		2.5		3		3.5		4		4.5		5	
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
4000	431	267	0.41																		
5000	539	286	0.53	366	1.01																
6000	647	307	0.68	384	1.23	447	1.81														
7000	754	331	0.86	403	1.48	463	2.14	517	2.82	569	3.6										
8000	862	354	1.06	423	1.77	482	2.51	533	3.25	580	4.02	626	4.88								
10000	1078	397	1.46	470	2.48	523	3.34	571	4.25	616	5.19	657	6.12	694	7.05	732	8.05	769	9.12	806	10.25
11000	1185	424	1.74	494	2.88	545	3.84	592	4.82	635	5.82	676	6.86	713	7.88	748	8.91	782	9.95	816	11.00
12000	1293	451	2.08	515	3.25	570	4.41	613	5.42	655	6.51	695	7.6	733	8.74	767	9.86	800	10.98	831	12.08
13000	1401	480	2.47	535	3.61	595	5.02	637	6.13	677	7.27	715	8.43	751	9.63	786	10.98	819	12.06	850	13.27
14000	1509	510	2.92	558	4.05	617	5.59	662	6.9	699	8.08	736	9.33	771	10.59	805	11.87	838	13.2	869	14.5
15000	1616	539	3.42	584	4.59	637	6.13	686	7.71	724	9	758	10.27	793	11.62	825	12.97	857	14.3	889	15.78
16000	1724	570	3.99	611	5.21	657	6.68	709	8.48	748	9.99	782	11.34	814	12.7	847	14.15	877	15.59	907	17.05
17000	1832	600	4.62	639	5.9	680	7.34	729	9.2	773	11.01	807	12.5	838	13.93	868	15.37	899	16.93	928	18.46
18000	1940	631	5.32	668	6.67	705	8.12	749	9.92	795	11.95	831	13.7	862	15.25	892	16.77	920	18.29	949	19.85
19000	2047	661	6.09	697	7.52	732	9	770	10.72	815	12.85	855	14.9	887	16.64	916	18.26	943	19.88	970	21.47
20000	2155	692	6.94	727	8.44	760	9.97	795	11.67	835	13.75	876	16.02	912	18.07	941	19.93	969	21.52	994	23.21
22000	2371	755	8.88	787	10.55	817	12.2	847	13.93	879	15.86	916	18.18	954	20.69	989	23.04	1017	25.09	1043	26.88
24000	2586	817	11.17	847	13.01	875	14.8	903	16.63	931	18.57	961	20.7	994	23.2	1030	25.96	1063	28.61	1092	31.05
26000	2802	880	13.84	909	15.86	935	17.81	960	19.76	986	21.77	1012	23.89	1040	26.22	1070	28.87	1103	31.86	1135	34.79
28000	3017	944	16.92	970	19.13	995	21.24	1019	23.33	1043	25.45	1067	27.63	1091	29.94	1117	32.44	1144	35.21	1175	38.38
30000	3233	1007	20.44	1033	22.84	1056	25.13	1079	27.37	1101	29.61	1123	31.9	1145	34.26	1168	36.74	1192	39.39	1217	42.28
32000	3448	1071	24.43	1095	27.03	1118	29.5	1139	31.9	1160	34.29	1181	36.69	1201	39.14	1222	41.67	1244	44.31	1268	47.1
34000	3664	1134	28.94	1158	31.73	1179	34.38	1200	36.96	1220	39.49	1240	42.03	1259	44.59	1278	47.21	1298	49.89	1318	52.69
36000	3879	1198	33.97	1221	36.97	1242	39.81	1261	42.56	1280	45.26	1299	47.94	1318	50.63	1336	53.35	1354	56.12	1373	58.97
38000	4095	1262	39.58	1284	42.76	1304	45.81	1323	48.73	1341	51.6	1359	54.44	1377	57.27	1394	60.12	1412	63	1428	65.93
40000	4310	1326	45.79	1347	49.18	1366	52.41	1385	55.52	1403	58.56	1420	61.56	1437	64.55	1453	67.53	1470	70.53	1486	73.56
42000	4526	1391	52.62	1411	56.22	1429	59.64	1447	62.94	1464	66.16	1481	69.33	1497	72.48	1513	75.61				
44000	4741	1455	60.12	1474	63.93	1492	67.54	1509	71.03												
48000	5172																				
50000	5388																				

VOL	VEL	6.0		7		8		9		10		11		12		14		16		17	
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
10000	1078																				
11000	1185	883	13.51																		
12000	1293	893	14.51	955	17.16																
13000	1401	908	15.69	965	18.33	1022	21.18														
14000	1509	926	17.1	980	19.71	1033	22.55	1086	25.58	1139	28.77										
15000	1616	945	18.56	998	21.35	1048	24.14	1098	27.16	1147	30.36	1197	33.72								
16000	1724	965	20.07	1017	23.03	1067	26.02	1113	28.98	1160	32.17	1206	35.53	1253	39.05						
17000	1832	983	21.57	1037	24.79	1086	27.94	1132	31.11	1175	34.24	1219	37.59	1263	41.1	1351	48.59				
18000	1940	1003	23.2	1055	26.5	1105	29.93	1151	33.27	1195	36.62	1237	40.01	1277	43.42	1360	50.89	1442	58.94	1482	64.34
19000	2047	1024	24.93	1075	28.38	1123	31.9	1170	35.5	1214	39.03	1255	42.57	1295	46.13	1373	53.47	1452	61.51	1493	67.52
20000	2155	1046	26.76	1095	30.34	1143	43	1189	37.81	1233	41.51	1274	45.22	1314	48.94	1388	56.36	1469	66.44	1506	70.75
21000	2263	1067	28.6	1116	32.41	1163	36.2	1208	40.06	1252	44.07	1293	47.96	1333	51.85	1408	59.69	1484	69.59	1520	74.04
22000	2371	1091	30.7	1137	34.46	1184	38.52	1228	42.51	1270	46.46	1313	50.77	1352	54.85	1427	63.01	1497	71.25		
23000	2478	1115	32.93	1160	36.8	1205	40.96	1248	45.08	1290	49.26	1331	53.5	1372	57.92	1446	66.44	1515	75		
24000	2586	1140	35.25	1184	39.29	1226	43.36	1270	47.77	1311	52.09	1351	56.46	1390	60.89	1465	69.96				
25000	2694	1165	37.64	1208	41.91	1250	46.12	1290	50.39	1332	55.04	1371	59.55	1409	64.11	1485	73.55				
26000	2802	1189	40.13	1233	44.63	1274	49.02	1313	53.41	1354	58.13	1392	62.78	1430	67.47	1503	77.01				
27000	2909	1212	42.45	1258	47.43	1299	52.04	1337	56.59	1375	61.16	1414	66.14	1451	70.97	1522	80.77				
28000	3017	1233	44.68	1283	50.34	1323	55.17	1362	59.91	1399	64.63	1435	69.4	1473	74.61						
29000	3125	1254	46.85	1305	53.05	1348	58.39	1386	63.36	1423	68.25	1458	73.14	1493	78.1						
30000	3233	1274	49	1327	55.68	1373	61.72	1411	65.92	1447	72.01	1482	77.06	1516	82.13						
32000	3448	1314	53.4	1368	60.74	1417	67.82	1460	74.28	1497	79.89										

Performance shown is for installation type D - Ducted inlet, Ducted outlet.
Power rating BHP does not include drive losses.
Performance ratings do not include the effects of appurtenances in the airstream.
The most efficient fan selection appears above the solid line.

CECO ENVIRONMENTAL

CECO HEE-Duall

Air Pollution Control | FAN PERFORMANCE DATA

SWSI BI AF | HPCA 4450 SWSI
Fiberglass Centrifugal Fan
Classes I, II, III

Class I: 813 RPM
Class II: 1138 RPM
Class III: 1382 RPM

Backward Inclined - Airfoil
Outlet Area: 11.46 Sq Ft

Wheel: 47" Diameter
Wheel Circumference: 12.30 Ft.

Maximum BHP $\left(\frac{\text{RPM}}{1000}\right)^3$ X 46.6

Static Pressure - Inches W.C.

VOL	VEL	0.5		1		1.5		2		2.5		3		3.5		4		4.5		5	
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
5000	436	228	0.47																		
6000	523	238	0.58	315	1.16																
7000	611	250	0.69	322	1.33																
8000	698	263	0.83	332	1.52	390	2.29														
9000	785	275	0.97	343	1.74	398	2.56	448	3.44												
10000	872	290	1.13	355	1.99	408	2.86	456	3.79	501	4.79										
11000	959	305	1.32	368	2.26	419	3.19	466	4.18	509	5.21	549	6.32								
12000	1047	321	1.54	380	2.53	431	3.56	476	4.6	518	5.69	557	6.82	594	8.03	630	9.32				
13000	1134	337	1.78	393	2.82	444	3.95	488	5.05	528	6.21	566	7.39	602	8.62	636	9.91	669	11.3		
14000	1221	355	2.05	408	3.15	457	4.37	500	5.55	539	6.75	576	8.01	611	9.29	644	10.6	678	12	707	13.4
16000	1396	391	2.68	439	3.92	482	5.22	526	6.64	563	7.98	598	9.34	631	10.7	664	12.2	694	13.7	723	15.1
18000	1570	428	3.46	471	4.84	512	6.25	550	7.73	589	9.36	623	10.9	655	12.4	685	13.9	714	15.5	743	17.1
20000	1744	465	4.39	505	5.91	544	7.46	579	9.06	613	10.7	649	12.5	680	14.2	709	15.9	737	17.6	764	19.3
22000	1919	504	5.49	542	7.16	576	8.85	610	10.6	642	12.3	673	14.2	706	16.2	735	18.1	762	19.9	788	21.8
24000	2093	543	6.77	578	8.6	610	10.4	642	12.3	673	14.2	702	16.1	730	18.1	760	20.3	789	22.4	814	24.4
26000	2268	582	8.27	615	10.3	646	12.2	675	14.2	705	16.2	733	18.3	760	20.4	786	22.8	812	24.8	840	27.2
28000	2442	621	9.99	653	12.1	683	14.2	710	16.4	737	18.6	764	20.7	790	23	815	25.2	839	27.5	863	29.9
30000	2617	661	12	691	14.2	719	16.5	746	18.8	770	21.1	796	23.4	822	25.8	846	28.2	868	30.6	892	33
32000	2791	701	14.2	730	16.6	756	19	782	21.5	806	23.9	829	26.4	854	28.9	877	31.4	900	33.9	922	36.5
34000	2966	742	16.6	769	19.2	794	21.9	819	24.4	842	27	864	29.6	886	32.3	909	34.9	931	37.5	953	40.2
36000	3140	782	19.4	808	22.2	832	24.9	856	27.7	878	30.4	900	33.1	920	35.9	942	38.7	963	41.5	984	44.3
38000	3315	823	22.5	847	25.4	871	28.3	893	31.2	915	34.1	936	37	956	39.9	975	42.8	996	45.8	1016	48.7
40000	3489	864	25.9	887	29	909	32	931	35.1	952	38.1	973	41.1	992	44.2	1011	47.3	1029	50.4	1049	53.5
42000	3663	905	29.6	926	32.9	948	36.1	969	39.3	989	42.5	1009	45.7	1029	48.9	1047	52.1	1064	55.3	1082	58.6
44000	3838	946	33.8	966	37.2	988	40.5	1008	43.9	1027	47.3	1046	50.6	1065	53.9	1083	57.2	1101	60.6	1117	64.1
46000	4012	987	38.3	1007	41.8	1027	45.3	1046	48.9	1065	52.4	1084	55.9	1102	59.3	1120	62.9	1137	66.3	1153	69.8
48000	4187	1028	43.2	1047	46.8	1066	50.5	1085	54.2	1104	57.9	1121	61.6	1139	65.2	1156	68.8	1173	72.4	1189	76.1
50000	4361	1069	48.5	1088	52.3	1106	56.2	1125	60	1142	63.8	1159	67.6	1176	71.4	1193	75.2	1210	78.9	1226	82.7
52000	4536	1110	54.2	1128	58.1	1146	62.2	1164	66.1	1181	70.1	1198	74.1	1214	78.1	1230	82	1247	85.9	1262	89.8
54000	4710	1151	60.5	1169	64.4	1186	68.7	1203	72.8	1220	76.9	1236	81.1	1252	85.2	1268	89.3	1284	93.3	1299	97.4
56000	4885	1193	67.2	1210	71.2	1226	75.6	1243	79.9	1259	84.2	1275	88.5	1290	92.8	1306	97.1	1321	101	1336	105
58000	5059	1234	74.3	1251	78.5	1267	83	1282	87.5	1298	91.9	1314	96.3	1329	101	1344	105	1358	110	1373	114
60000	5233	1275	82	1292	86.2	1307	90.9	1322	95.6	1338	100	1353	105	1368	109						

VOL	VEL	6.0		7		8		9		10		11		12		14		16		18	
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
16000	1396	780	18.3	834	21.7																
18000	1570	797	20.5	848	23.9	897	27.6	945	31.5												
20000	1744	817	22.9	866	26.6	913	30.3	958	34.2	1002	38.3										
22000	1919	838	25.5	886	29.4	932	33.4	975	37.5	1017	41.7	1045	42.7								
24000	2093	862	28.5	908	32.6	953	36.8	995	41.1	1036	45.5	1058	46	1098	50.5						
26000	2268	887	31.6	932	36	975	40.4	1016	45	1056	49.6	1075	50	1114	54.5	1188	64.2	1260	74.8		
28000	2442	914	35	957	39.6	999	44.4	1039	49.2	1078	54	1095	54.4	1132	59.2	1203	68.9	1272	79.3	1339	90.3
30000	2617	938	38.2	984	43.6	1024	48.6	1064	53.7	1101	58.8	1115	59	1152	64	1222	74.3	1288	84.8	1352	95.9
32000	2791	964	41.7	1008	47.4	1051	53.1	1089	58.4	1126	63.8	1138	63.9	1173	69.2	1242	80	1307	91	1369	102
34000	2966	984	45.7	1033	51.3	1076	57.5	1116	63.5	1151	69.2	1162	69.3	1196	74.7	1263	86	1327	97.5		
36000	3140	1024	50	1063	55.9	1100	61.9	1140	68.4	1178	74.9	1186	74.9	1220	80.7	1285	92.3	1348	104		
38000	3315	1055	54.7	1093	60.8	1129	67	1164	73.3	1202	80.3	1212	80.9	1245	86.9	1309	99.2	1370	111		
40000	3489	1087	59.7	1124	66	1159	72.5	1193	79	1226	85.7	1239	87.1	1272	93.5	1334	106				
42000	3663	1119	65.1	1155	71.6	1189	78.3	1223	85.1	1255	92	1263	93.1	1298	100	1359	114				
44000	3838	1152	70.8	1187	77.6	1221	84.6	1253	91.8	1285	98.7	1287	99	1321	107						
46000	4012	1185	77	1219	84.1	1252	91.2	1284	98.5	1315	106	1316	106	1346	113						
48000	4187	1220	83.5	1252	90.9	1285	98.3	1316	106	1346	113	1345	113	1375	121						
50000	4361	1256	90.4	1286	98.2	1317	106	1348	114	1377	121	1375	121								
52000	4536	1292	97.8	1321	106	1350	114	1380	122												

Performance shown is for installation type D - Ducted inlet, Ducted outlet.
Power rating BHP does not include drive losses.
Performance ratings do not include the effects of appurtenances in the airstream.
The most efficient fan selection appears above the solid line.

CECO ENVIRONMENTAL

CECO HEE-Duall

Air Pollution Control | FAN PERFORMANCE DATA

SWSI BI AF | HPCA 4900 SWSI
Fiberglass Centrifugal Fan
Classes I, II, III

Class I: 738 RPM
Class II: 1033 RPM
Class III: 1255 RPM

Backward Inclined - Airfoil
Outlet Area: 14.02 Sq Ft

Wheel: 51.75" Diameter
Wheel Circumference: 13.54 Ft.

Maximum BHP $\left(\frac{\text{RPM}}{1000}\right)^3$ X 75.4

Static Pressure - Inches W.C.

VOL CFM	VEL FPM	0.5 RPM	0.5 BHP	1 RPM	1 BHP	1.5 RPM	1.5 BHP	2 RPM	2 BHP	2.5 RPM	2.5 BHP	3 RPM	3 BHP	3.5 RPM	3.5 BHP	4 RPM	4 BHP	4.5 RPM	4.5 BHP	5 RPM	5 BHP
8000	576	222	0.78	290	1.52																
9000	648	232	0.91	296	1.71	351	2.61														
10000	719	242	1.05	304	1.91	356	2.85														
11000	791	251	1.19	312	2.13	362	3.13	408	4.2												
12000	863	262	1.35	321	2.38	370	3.43	414	4.54	454	5.76										
13000	935	273	1.54	330	2.64	378	3.76	421	4.93	460	6.16	497	7.51								
14000	1007	285	1.74	340	2.93	387	4.11	428	5.34	468	6.63	502	7.98	537	9.44						
15000	1079	297	1.97	349	3.19	396	4.49	436	5.78	474	7.13	509	8.52	542	9.98	574	11.6				
16000	1151	309	2.22	359	3.49	405	4.89	445	6.24	482	7.65	516	9.11	548	10.6	579	12.2	609	13.8		
17000	1223	323	2.49	370	3.83	415	5.31	454	6.74	490	8.2	523	9.72	555	11.3	585	12.9	614	14.5	643	16.3
18000	1295	336	2.79	382	4.2	424	5.72	463	7.26	498	8.8	531	10.4	563	12	592	13.6	621	15.3	648	17.1
19000	1367	350	3.11	394	4.59	434	6.14	473	7.83	508	9.42	540	11	570	12.7	600	14.4	627	16.2	654	18
20000	1439	363	3.47	406	5.01	445	6.62	483	8.38	517	10.1	549	11.8	578	13.5	607	15.3	635	17.1	661	18.9
22000	1583	391	4.27	430	5.95	467	7.68	501	9.49	537	11.5	567	13.3	596	15.2	624	17.1	650	18	676	21
24000	1727	419	5.2	456	7.03	491	8.99	523	10.9	554	12.8	587	15	615	17	642	18	667	21.1	692	23.2
26000	1871	448	6.26	483	8.23	515	10.2	546	12.3	576	14.4	604	16.6	635	19	661	21.1	686	23.3	710	25.6
28000	2015	477	7.48	510	9.6	540	11.8	570	13.9	599	16.2	626	18.4	652	20.8	681	23.4	705	25.8	728	28.1
30000	2158	506	8.86	538	11.1	566	13.4	594	15.7	622	18.1	648	20.5	673	23	698	25.5	720	28.3	748	30.9
32000	2302	536	10.4	565	12.9	593	15.3	619	17.8	646	20.2	671	22.8	695	25.3	719	28	741	30.6	767	33.7
34000	2446	565	12.2	594	14.8	621	17.3	645	19.9	670	22.6	695	25.2	718	27.9	741	30.7	763	33.4	784	36.3
36000	2590	595	14.1	622	16.9	648	19.6	672	22.3	695	25.1	719	27.9	742	30.7	764	33.6	786	36.6	806	39.4
38000	2734	625	16.2	651	19.2	676	22	699	24.9	721	27.9	743	30.8	766	33.7	787	36.7	808	39.7	828	42.8
40000	2878	655	18.6	680	21.7	704	24.7	727	27.7	748	30.8	769	33.9	790	37	811	40.1	831	43.2	851	46.4
42000	3022	685	21.2	710	24.4	732	27.7	754	30.8	775	34	795	37.3	815	40.5	835	43.7	855	47	874	50.3
44000	3166	716	24	739	27.4	761	30.8	782	34.1	803	37.5	822	40.8	841	44.3	860	47.6	879	51	898	54.5
46000	3310	746	27.1	768	30.7	790	34.2	810	37.7	830	41.2	849	44.7	867	48.2	885	51.8	904	55.3	922	58.9
48000	3453	777	30.5	798	34.2	819	37.9	838	41.6	858	45.2	877	48.8	894	52.5	911	56.2	928	60.0	947	63.6
50000	3597	807	34.2	828	38.1	848	41.9	867	45.7	886	49.5	904	53.2	922	57	938	60.9	955	64.8	971	68.6
55000	3957	884	44.6	903	48.9	921	53.1	939	57.3	956	61.5	973	65.7	990	69.8	1006	73.9	1022	78.2	1037	82.4
60000	4317	961	57.1	979	61.6	995	66.3	1012	70.9	1028	75.5	1044	80.1	1060	84.6	1075	89.1	1090	93.6	1105	98.2
65000	4677	1038	71.8	1055	76.6	1070	81.7	1086	86.6	1101	91.6	1116	96.6	1130	102	1145	107	1159	111	1173	116
70000	5036	1116	88.9	1131	93.9	1146	99.4	1160	105	1175	110	1189	116	1202	121	1216	126	1229	132	1243	137

VOL CFM	VEL FPM	6.0 RPM	6.0 BHP	7 RPM	7 BHP	8 RPM	8 BHP	9 RPM	9 BHP	10 RPM	10 BHP	11 RPM	11 BHP	12 RPM	12 BHP	14 RPM	14 BHP	16 RPM	16 BHP	18 RPM	18 BHP
18000	1295	701	20.9																		
19000	1367	706	21.8																		
20000	1439	712	22.8	760	26.9																
22000	1583	725	25	771	29.2	815	33.6	859	38.4												
24000	1727	740	27.4	785	31.9	827	36.4	869	41.1	909	46.1										
26000	1871	756	30	800	34.7	841	39.5	881	44.3	920	49.3	957	54.6	994	60.1						
28000	2015	773	32.9	816	37.7	857	42.7	896	47.8	933	53	969	58.3	1005	63.8	1073	75.5				
30000	2158	792	35.9	833	41	873	46.2	911	51.6	948	57	983	62.6	1017	68.2	1081	79.9	1148	92.4		
32000	2302	811	39.1	851	44.5	890	50	927	55.5	963	61.2	998	67	1032	72.9	1096	84.8	1158	97.4	1218	111
34000	2446	831	42.5	870	48.1	908	54	944	59.7	979	65.6	1014	71.7	1047	77.8	1110	90.2	1170	103	1229	116
36000	2590	849	45.7	890	52.1	927	58.1	963	64.2	997	70.4	1030	76.6	1063	82.9	1125	95.9	1184	109	1241	123
38000	2734	867	49.1	909	56	947	62.6	981	68.9	1015	75.4	1048	81.8	1079	88.4	1141	102	1199	116	1255	130
40000	2878	889	52.9	926	59.6	966	67.1	1001	73.9	1034	80.5	1066	87.4	1097	94.2	1157	108	1214	122		
42000	3022	911	57.1	947	64	983	71.3	1021	79	1054	86.1	1085	93	1116	100	1171	115	1230	129		
44000	3166	934	61.5	969	68.6	1003	75.9	1039	83.8	1074	91.8	1105	99.2	1134	106	1192	121	1247	136		
46000	3310	958	66.1	992	73.5	1025	81	1056	88.7	1092	97.2	1124	105	1154	113	1211	129				
48000	3453	981	71.1	1015	78.7	1047	86.5	1078	94.4	1108	102	1143	111	1174	120	1229	136				
50000	3597	1006	76.3	1038	84.2	1070	92.2	1100	100	1130	109	1159	117	1192	126	1250	144				
55000	3957	1067	90.9	1098	99.4	1128	108	1157	117	1186	126	1213	135	1240	144						
60000	4317	1133	107	1160	117	1189	126	1217	135	1244	145										

Performance shown is for installation type D - Ducted inlet, Ducted outlet.
Power rating BHP does not include drive losses.
Performance ratings do not include the effects of appurtenances in the airstream.
The most efficient fan selection appears above the solid line.

CECO ENVIRONMENTAL

CECO HEE-Duall

Air Pollution Control | FAN PERFORMANCE DATA

SWSI BI AF | HPCA 5425 SWSI
Fiberglass Centrifugal Fan
Classes I, II, III

Class I: 667 RPM
Class II: 934 RPM
Class III: 1134 RPM

Backward Inclined - Airfoil
Outlet Area: 16.87 Sq Ft

Wheel: 57.25" Diameter
Wheel Circumference: 14.98 Ft.

Maximum BHP $\left(\frac{\text{RPM}}{1000}\right)^3$ X 125

Static Pressure - Inches W.C.

VOL	VEL	0.5		1		1.5		2		2.5		3		3.5		4		4.5		5	
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
10000	588	202	0.98	263	1.9																
12000	705	217	1.25	273	2.29	321	3.42														
14000	823	231	1.54	285	2.74	331	3.99	371	5.32												
16000	941	248	1.9	299	3.26	342	4.63	381	6.07	416	7.58	450	9.23								
18000	1058	265	2.32	313	3.81	355	5.35	392	6.91	426	8.54	458	10.2	488	12	518	13.8				
20000	1176	284	2.83	328	4.41	370	6.16	405	7.85	438	9.59	469	11.4	498	13.3	525	15.2	552	17.2	578	19.4
22000	1293	304	3.4	345	5.12	383	6.99	419	8.87	450	10.7	480	12.7	506	14.7	535	15.7	561	18.7	585	20.8
24000	1411	324	4.07	362	5.93	396	7.87	433	10	040	12	480	14.1	520	16.1	546	18.3	571	20.5	595	22.7
26000	1528	344	4.83	380	6.83	414	8.89	446	11.1	479	13.4	506	15.6	533	17.8	558	20	582	22.4	608	24.7
28000	1646	365	5.71	399	7.85	432	10	462	12.3	492	14.8	521	17.2	546	19.5	571	21.8	594	24.3	617	26.8
30000	1764	386	6.68	418	8.96	449	11.3	478	13.7	506	16.1	535	18.9	560	21.4	584	23.8	607	26.5	630	29.1
32000	1881	407	7.77	438	10.2	467	12.7	495	15.2	522	17.8	547	20.4	575	23.4	599	25.1	621	28.8	643	31.5
34000	1999	428	8.98	458	11.6	485	14.2	513	16.8	539	19.5	563	22.3	588	25.3	613	26.3	635	31.2	657	34
36000	2116	450	10.3	479	13.1	505	15.8	531	18.6	556	21.4	580	24.3	603	27.3	626	30.5	650	33.7	671	36.8
38000	2234	471	11.8	499	14.7	525	17.6	549	20.5	573	23.5	597	26.5	619	29.6	640	32.7	663	36.2	686	39.6
40000	2351	493	13.4	520	16.5	545	19.5	568	22.6	591	25.7	614	28.8	635	32	656	35.3	677	38.6	699	42.3
42000	2469	515	15.2	541	18.5	565	21.6	587	24.9	609	28.1	631	31.3	653	34.7	673	38.1	693	41.5	712	45
44000	2587	537	17.2	562	20.6	585	23.9	607	27.2	628	30.7	649	34	670	37.5	690	41	709	44.5	728	48.2
46000	2704	559	19.3	583	22.8	606	26.3	627	29.8	647	33.4	667	36.9	689	40.5	707	44.1	726	47.8	744	51.6
48000	2822	582	21.6	605	25.3	626	29	647	32.6	667	36.3	686	40	706	43.7	725	47.4	743	51.2	761	55.1
50000	2939	604	24.1	626	27.9	647	31.8	668	35.5	687	39.3	705	43.2	724	47.1	742	50.9	761	54.8	778	58.8
52000	3057	626	26.8	648	30.8	668	34.8	688	38.7	707	42.6	725	46.6	742	50.7	760	54.7	778	58.7	795	62.8
54000	3175	649	29.6	670	33.8	689	38	709	42	727	46.1	745	50.2	761	54.5	778	58.6	796	62.8	813	67
56000	3292	671	32.7	691	37.1	711	41.4	729	45.6	747	49.8	765	54.1	781	58.4	797	62.8	814	67.1	831	71.4
58000	3410	694	36	713	40.5	732	45	750	49.4	768	53.8	785	58.2	801	62.6	817	67.1	832	71.6	849	76
60000	3527	716	39.6	735	44.3	754	48.8	771	53.4	788	58	805	62.5	821	67	836	71.7	851	76.4	867	81
65000	3821	773	49.5	790	54.5	808	59.5	824	64.5	840	69.5	856	74.3	872	79.2	886	84.2	901	89.2	914	94.2
70000	4115	830	61	846	66.3	862	71.7	878	77.1	893	82.5	908	87.8	923	93	937	98.3	951	104	964	109
75000	4409	887	74.2	902	79.8	917	85.7	932	91.4	946	97.2	960	103	974	109	988	114	1001	120	1014	126
80000	4703	944	89.3	958	95.2	972	101	986	108	1000	114	1014	120	1027	126	1039	132	1052	138	1065	144

VOL	VEL	6.0		7		8		9		10		11		12		14		16		18	
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
22000	1293	634	25.6																		
24000	1411	641	27.4	685	32.4																
26000	1528	650	29.5	693	34.6	734	40														
28000	1646	661	31.9	702	37.1	742	42.5	780	48.3												
30000	1764	672	34.4	713	39.9	751	45.4	788	51.2	824	57.4	859	63.8								
32000	1881	684	37	724	42.7	762	48.6	797	54.5	832	60.6	866	67.1	899	73.8						
34000	1999	697	39.8	736	45.8	773	51.9	808	58.1	842	64.4	875	70.8	907	77.6	969	91.9				
36000	2116	711	42.8	748	49	784	55.3	819	61.8	853	68.3	885	75	916	81.8	977	96.1	1035	111		
38000	2234	724	45.9	762	52.4	797	58.9	831	65.6	864	72.4	896	79.4	926	86.4	985	101	1042	116	1097	133
40000	2351	739	49.3	775	56	810	62.8	843	69.7	875	76.7	907	83.9	937	91.2	995	106	1050	121	1104	138
42000	2469	754	52.7	789	59.7	824	66.8	856	74	888	81.2	918	88.6	948	96.2	1006	112	1060	127	1112	144
44000	2587	767	55.9	804	63.7	837	71	870	78.5	901	86	931	93.6	960	101	1017	117	1070	133	1122	150
46000	2704	780	59.1	818	67.6	852	75.5	883	83.1	914	91	944	96.8	972	107	1028	123	1081	140	1132	157
48000	2822	796	62.9	831	71.3	867	80	898	88	928	96.1	957	104	985	112	1040	129	1092	146		
50000	2939	812	66.9	845	75.2	880	84.3	913	93.2	942	101	971	110	999	118	1052	136	1104	153		
52000	3057	829	71.1	861	79.6	892	88.4	927	98.1	957	107	985	116	1012	124	1065	142	1116	160		
54000	3175	846	75.6	877	84.3	908	93.2	940	103	971	113	1000	122	1026	131	1079	149	1128	168		
56000	3292	863	80.2	894	89.2	924	98.4	953	108	985	118	1014	128	1041	137	1092	156				
58000	3410	881	85.1	911	94.3	940	104	968	113	997	123	1028	134	1056	144	1106	164				
60000	3527	898	90.2	928	99.7	957	109	985	119	1012	129	1041	140	1070	151	1121	171				
65000	3821	943	104	972	114	1000	125	1026	135	1052	146	1078	156	1103	167						
70000	4115	990	120	1017	131	1044	141	1069	152	1095	164	1119	175								

Performance shown is for installation type D - Ducted inlet, Ducted outlet.
Power rating BHP does not include drive losses.
Performance ratings do not include the effects of appurtenances in the airstream.
The most efficient fan selection appears above the solid line.

CECO ENVIRONMENTAL

CECO HEE-Duall

Air Pollution Control | FAN PERFORMANCE DATA

SWSI BI AF | HPCA 6000 SWSI
Fiberglass Centrifugal Fan
Classes I, II, III

Class I: 603 RPM
Class II: 844 RPM
Class III: 1025 RPM

Backward Inclined - Airfoil
Outlet Area: 20.88 Sq Ft

Wheel: 63.375" Diameter
Wheel Circumference: 16.58 Ft.

Maximum BHP $\left(\frac{\text{RPM}}{1000}\right)^3$ X 208

Static Pressure - Inches W.C.

VOL CFM	VEL FPM	0.5 RPM	0.5 BHP	1 RPM	1 BHP	1.5 RPM	1.5 BHP	2 RPM	2 BHP	2.5 RPM	2.5 BHP	3 RPM	3 BHP	3.5 RPM	3.5 BHP	4 RPM	4 BHP	4.5 RPM	4.5 BHP	5 RPM	5 BHP
12000	576	182	1.17	236	2.28																
14000	672	192	1.43	244	2.66	288	4.03														
16000	768	202	1.7	252	3.08	294	4.55	332	6.15												
18000	864	214	2.03	262	3.57	302	5.15	338	6.82	371	8.64										
20000	959	226	2.4	273	4.11	311	5.8	346	7.6	377	9.47	407	11.5								
22000	1055	239	2.83	283	4.66	321	6.54	354	8.44	385	10.4	414	12.5	441	14.7	467	17				
24000	1151	253	3.33	293	5.24	331	7.33	363	9.37	393	11.5	421	13.7	448	15.9	473	18.3	497	20.8		
26000	1247	267	3.88	306	5.93	342	8.18	373	10.4	402	12.6	429	14.9	455	17.3	480	19.7	503	22.2	526	24.9
28000	1343	282	4.5	318	6.68	351	8.97	384	11.5	412	13.8	438	16.2	464	18.7	488	21.3	510	23.9	533	26.6
30000	1439	297	5.2	331	7.52	363	9.93	394	12.6	422	15.1	448	17.7	472	20.2	496	22.9	518	25.8	540	28.4
32000	1535	312	5.98	344	8.44	375	11	404	13.6	433	16.5	458	19.2	482	21.9	505	24.7	527	27.5	548	30.4
34000	1631	327	6.85	358	9.45	388	12.1	415	14.9	443	17.9	469	20.8	492	23.7	514	26.6	536	29.5	556	32.5
36000	1727	342	7.8	372	10.5	401	13.3	427	16.2	453	19.2	479	22.5	502	25.5	524	28.6	545	31.8	565	34.7
38000	1823	358	8.84	387	11.7	414	14.7	440	17.7	464	20.8	489	24.1	513	27.5	534	30.6	555	33.9	575	37.1
40000	1919	374	9.98	402	13	427	16.1	453	19.2	476	22.4	499	25.8	523	29.4	545	32.9	565	36.2	585	39.6
42000	2015	389	11.2	417	14.4	441	17.6	466	20.9	489	24.2	511	27.7	533	31.2	556	35.1	576	38.7	595	42.2
44000	2111	405	12.6	431	15.9	455	19.3	479	22.7	501	26.1	523	29.7	544	33.3	565	37.2	587	41.2	605	44.9
46000	2207	421	14	447	17.5	470	21	492	24.6	514	28.2	535	31.8	556	35.6	575	39.4	597	43.7	616	47.7
48000	2303	437	15.6	462	19.3	485	22.9	505	26.6	527	30.3	546	34.1	568	38	587	41.9	605	46	627	50.5
50000	2399	453	17.3	477	21.2	499	24.9	520	28.8	541	32.6	561	36.6	580	40.5	599	44.6	617	48.7	636	53.1
55000	2639	494	22.2	516	26.4	537	30.6	556	34.7	575	39	594	43.2	612	47.5	630	51.9	647	56.3	664	60.8
60000	2878	535	27.9	556	32.5	575	37.1	594	41.6	611	46.2	628	50.9	645	55.5	662	60.1	679	64.9	695	69.7
65000	3118	576	34.6	595	39.6	614	44.6	631	49.5	648	54.4	664	59.4	679	64.5	695	69.5	711	74.5	727	79.6
70000	3358	618	42.4	636	47.8	653	53.1	669	58.5	685	63.7	701	69.1	716	74.4	730	79.9	745	85.3	760	90.8
75000	3598	659	51.3	676	57.1	692	62.8	708	68.6	723	74.2	738	79.9	753	85.6	766	91.3	780	97.2	793	103
80000	3838	701	61.4	717	67.6	732	73.7	747	79.8	762	86	776	92	790	98	803	104	816	110	829	116
85000	4078	743	72.8	758	79.3	773	85.9	787	92.4	801	98.9	814	105	827	112	841	118	853	125	865	131
90000	4318	785	85.7	799	92.5	813	99.5	827	106	840	113	853	120	865	127	878	134	890	140	902	147
95000	4557	827	100	841	107	853	115	867	122	879	129	892	136	904	144	916	151	928	158	939	165
100000	4797	869	116	882	123	894	131	907	139	919	146	931	154	943	162	954	169	966	177	977	184
105000	5037	911	133	924	141	936	149	947	157	959	165	971	173	982	181	993	189	1004	198	1015	205

VOL CFM	VEL FPM	6.0 RPM	6.0 BHP	7 RPM	7 BHP	8 RPM	8 BHP	9 RPM	9 BHP	10 RPM	10 BHP	11 RPM	11 BHP	12 RPM	12 BHP	14 RPM	14 BHP	16 RPM	16 BHP	18 RPM	18 BHP
28000	1343	575	32.2																		
30000	1439	581	34.1	620	40.4																
32000	1535	588	36.4	626	42.6	663	49.2														
34000	1631	596	38.7	633	45.1	669	51.7	704	58.8												
36000	1727	604	41.2	641	47.8	676	54.5	709	61.6	742	69.1										
38000	1823	613	43.7	649	50.6	683	57.6	716	64.8	748	72.3	779	80.2	809	88.4						
40000	1919	622	46.4	657	53.5	691	60.8	723	68.2	754	75.8	785	83.6	814	91.9						
42000	2015	631	49.3	666	56.6	699	64.1	731	71.8	762	79.6	791	87.5	820	95.7	876	113				
44000	2111	641	52.3	675	59.8	708	67.6	740	75.5	770	83.5	799	91.7	827	100	882	118	935	136		
46000	2207	651	55.4	685	63.2	717	71.1	748	79.3	778	87.6	807	96	835	105	888	122	940	141	995	166
48000	2303	662	58.7	695	66.8	727	74.9	757	83.3	786	91.8	815	100	842	109	895	127	946	146	1000	172
50000	2399	673	62.1	705	70.4	737	78.9	766	87.4	795	96.2	823	105	851	114	903	133	952	152	1017	187
55000	2639	697	70.1	732	80.2	762	89.3	791	96.7	819	108	846	117	872	127	923	147	971	167		
60000	2878	726	79.4	756	89.4	789	101	818	111	844	121	871	131	896	141	945	162	992	183		
65000	3118	757	90	785	101	813	111	843	123	871	135	897	146	921	157	969	179	1014	201		
70000	3358	789	102	816	113	843	124	869	136	896	148	923	161	948	173	994	196				
75000	3598	821	115	848	126	874	138	898	151	923	163	946	176	974	190	1021	216				
80000	3838	854	129	880	141	905	154	929	167	953	180	976	193	998	206						
85000	4078	889	144	913	157	938	171	961	184	984	196	1006	211								
90000	4318	925	161	947	175	971	189	994	203	1016	217										
95000	4557	962	180	983	194	1004	209														

Performance shown is for installation type D - Ducted inlet, Ducted outlet.
Power rating BHP does not include drive losses.
Performance ratings do not include the effects of appurtenances in the airstream.
The most efficient fan selection appears above the solid line.

CECO ENVIRONMENTAL

CECO HEE-Duall

Air Pollution Control | FAN PERFORMANCE DATA

SWSI BI AF | HPCA 6600 SWSI
Fiberglass Centrifugal Fan
Classes I, II, III

Class I: 548 RPM
Class II: 767 RPM
Class III: 931 RPM

Backward Inclined - Airfoil
Outlet Area: 25.59 Sq Ft

Wheel: 69.75" Diameter
Wheel Circumference: 18.25 Ft.

Maximum BHP $\left(\frac{\text{RPM}}{1000}\right)^3$ X 335

Static Pressure - Inches W.C.

VOL	VEL	0.5		1		1.5		2		2.5		3		3.5		4		4.5		5	
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
14000	554	163	1.35	214	2.68																
16000	634	171	1.6	219	3.03																
18000	713	179	1.88	225	3.43	264	5.13														
20000	792	186	2.16	231	3.88	269	5.69	303	7.64												
22000	871	195	2.49	239	4.37	275	6.3	307	8.33	337	10.5										
24000	951	205	2.87	247	4.91	282	6.95	313	9.11	342	11.4	369	13.8								
26000	1030	214	3.29	255	5.47	289	7.68	320	9.95	348	12.3	374	14.8	399	17.4						
28000	1109	224	3.76	262	6.01	297	8.44	326	10.8	354	13.3	380	15.9	404	18.6	427	21.4	450	24.5		
30000	1188	235	4.28	271	6.66	305	9.28	334	11.8	360	14.4	386	17.1	409	19.9	432	22.7	454	26.8	475	29
32000	1267	246	4.85	280	7.36	312	10.1	341	12.8	367	15.5	392	18.4	415	21.3	437	24.2	459	27.3	479	30.5
34000	1347	257	5.48	290	8.13	319	10.9	349	13.9	375	16.8	399	19.7	421	22.7	443	25.8	464	29	484	32.2
36000	1426	268	6.18	299	8.96	328	11.9	357	15	382	18.1	406	21.1	428	24.3	449	27.5	470	30.8	490	34.1
38000	1505	279	6.94	309	9.86	337	12.9	364	16.1	390	19.4	413	22.6	435	25.9	456	29.2	476	32.6	495	36.1
40000	1584	290	7.77	319	10.8	347	14	372	17.3	398	20.9	421	24.2	442	27.6	463	31	483	34.5	502	38.1
45000	1782	319	10.2	346	13.6	371	17.1	395	20.6	417	24.3	441	28.4	462	32.3	481	36	500	39.9	518	43.7
50000	1980	349	13	374	16.8	396	20.7	419	24.6	440	28.6	460	32.7	481	37.1	502	41.6	518	45.7	537	49.8
55000	2178	379	16.5	402	20.6	423	24.8	443	29.1	464	33.4	483	37.8	502	42.3	519	46.9	539	52	557	56.8
60000	2376	409	20.5	430	25.1	451	29.6	469	34.3	488	38.9	507	43.6	525	48.4	542	53.3	558	58.2	576	63.6
65000	2574	439	25.2	459	30.2	479	35.1	497	40	513	45.1	531	50.1	548	55.2	565	60.4	581	66.6	595	71
70000	2772	470	30.6	489	36	507	41.3	524	46.6	540	52	556	57.4	573	62.8	589	68.3	604	73.8	619	79.6
75000	2970	501	36.8	519	42.5	536	48.3	552	53.9	568	59.6	583	65.5	598	71.2	613	77	628	82.9	643	88.8
80000	3168	532	43.8	549	49.9	565	56.1	581	62.1	596	68.2	610	74.3	624	80.5	638	86.7	653	92.8	667	99.1
85000	3366	563	51.7	579	58.2	594	64.8	609	71.3	624	77.6	638	84.1	651	90.6	664	97.2	678	104	691	110
90000	3564	594	60.5	609	67.5	624	74.3	638	81.3	652	88.1	666	94.8	679	102	692	109	704	116	716	123
95000	3762	625	70.3	640	77.7	654	84.9	668	92.3	681	99.6	694	107	707	114	719	121	731	128	743	138
100000	3960	657	81.2	670	88.9	684	96.6	697	104	710	112	723	120	735	127	747	135	759	142	770	150
105000	4158	688	93.3	701	101	714	109	727	117	739	125	751	134	763	141	775	149	788	157	796	165
110000	4356	719	106	732	115	744	123	757	132	769	140	780	149	792	157	803	165	814	173	825	182
115000	4555	751	121	763	129	775	139	787	147	799	156	810	165	821	174	832	182	843	191	853	200
120000	4753	783	137	794	145	806	155	817	164	829	173	839	182	850	192	860	201	871	210	881	219
125000	4951	814	154	826	163	837	172	847	182	858	192	869	201	879	211	889	220	899	230	910	239
130000	5149	846	172	857	181	868	192	878	202	889	212	899	221	909	231	919	241	928	251		
135000	5276	877	192	888	202	899	212	908	223	919	233	929	243								

VOL	VEL	6.0		7		8		9		10		11		12		14		16		18	
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
34000	1347	523	39.1																		
36000	1426	527	41	563	48.5																
38000	1505	532	43.2	567	50.7	601	58.8														
40000	1584	538	45.5	572	53	605	61.1	637	69.7												
45000	1782	553	51.8	586	59.8	618	68.2	648	76.7	677	85.9	706	95.4								
50000	1980	571	58.4	602	67.2	633	76.2	662	85.4	690	94.7	717	104	743	114	795	135				
55000	2178	589	66	620	75.4	649	84.9	677	94.7	705	105	731	115	756	125	805	146	852	169		
60000	2376	609	74.2	639	84.2	667	94.5	694	105	721	115	746	126	771	137	819	159	864	182	906	206
65000	2574	628	82.5	659	93.9	686	105	713	116	738	127	763	138	787	150	834	173	878	197	920	222
70000	2772	648	91	678	104	707	116	732	127	757	139	781	151	804	163	849	188	893	213		
75000	2970	670	101	697	113	725	127	752	140	776	153	800	165	823	178	867	204	909	230		
80000	3168	694	112	719	125	744	138	771	152	797	167	820	180	842	194	885	221	926	248		
85000	3366	718	124	743	137	767	151	790	165	815	180	840	196	862	211	904	239				
90000	3564	742	136	766	151	790	165	812	180	835	195	857	210	882	227	924	258				
95000	3762	767	150	791	165	813	180	835	195	857	211	878	227	899	243						
100000	3960	792	165	815	181	838	196	859	212	880	228	900	245	920	261						
105000	4158	818	182	840	198	862	214	883	230	904	247	924	264								
110000	4356	846	199	866	216	887	233	908	250	928	267										
115000	4565	874	217	893	235	912	253														

Performance shown is for installation type D - Ducted inlet, Ducted outlet.
Power rating BHP does not include drive losses.
Performance ratings do not include the effects of appurtenances in the airstream.
The most efficient fan selection appears above the solid line.

CECO ENVIRONMENTAL

CECO HEE-Duall

Air Pollution Control | FAN PERFORMANCE DATA

SWSI BI AF | HPCA 7300 SWSI
Fiberglass Centrifugal Fan
Classes I, II, III

Class I: 496 RPM
Class II: 694 RPM
Class III: 843 RPM

Backward Inclined - Airfoil
Outlet Area: 30.34 Sq Ft

Wheel: 77" Diameter
Wheel Circumference: 20.15 Ft.

Maximum BHP $\left(\frac{\text{RPM}}{1000}\right)^3$ X 549

Static Pressure - Inches W.C.

VOL CFM	VEL FPM	0.5 RPM	0.5 BHP	1 RPM	1 BHP	1.5 RPM	1.5 BHP	2 RPM	2 BHP	2.5 RPM	2.5 BHP	3 RPM	3 BHP	3.5 RPM	3.5 BHP	4 RPM	4 BHP	4.5 RPM	4.5 BHP	5 RPM	5 BHP
15000	487	143	1.43																		
20000	650	156	2.02	199	3.79	236	5.8														
25000	812	171	2.73	211	4.88	245	7.11	275	9.51												
30000	975	188	3.64	226	6.2	257	8.73	286	11.4	311	14.2	336	17.2								
35000	1137	206	4.8	240	7.6	271	10.6	296	13.6	323	16.7	345	19.9	368	23.2	388	26.7	409	30.4		
40000	1300	227	6.22	257	9.35	286	12.7	312	16.2	335	19.6	357	23	378	26.6	396	30.3	417	34.1	436	38
45000	1462	247	7.95	275	11.4	301	15	327	19	349	22.8	371	26.6	391	30.5	410	34.4	429	38.5	446	42.7
50000	1625	268	10	294	13.9	319	17.6	341	21.6	364	26.3	385	30.5	404	34.6	423	39	440	43.4	457	47.8
55000	1787	290	12.5	314	16.6	337	20.9	358	25.3	379	29.8	400	34.7	419	39.5	437	44.1	454	48.7	470	53.4
60000	1950	312	15.3	335	19.8	355	24.5	376	29.2	395	34	414	38.9	433	44.3	452	49.6	469	54.5	484	59.7
65000	2112	334	18.6	355	23.5	375	28.5	394	33.5	413	38.6	431	43.9	448	49.2	465	55	483	60.9	498	66.3
70000	2275	356	22.4	376	27.7	395	33	413	38.4	431	43.8	448	49.4	464	55	480	60.8	495	66.9	513	73.4
75000	2437	379	26.7	398	32.4	416	38.1	433	43.8	449	49.6	466	55.5	482	61.4	497	67.5	512	73.8	526	79.9
80000	2600	401	31.5	420	37.6	437	43.7	453	49.8	468	56	484	62.1	500	68.4	514	74.8	529	81.2	543	87.8
85000	2762	424	37	441	43.5	458	49.9	474	56.3	488	62.9	503	69.5	518	76	532	82.7	545	88.5	560	95.3
90000	2925	447	43	464	49.9	479	56.8	494	63.6	509	70.4	522	77.4	536	84.4	550	91.3	564	98.4	577	106
95000	3087	470	49.7	486	57	501	64.4	515	71.5	529	78.7	543	86	555	93.4	569	101	582	108	595	115
100000	3250	493	57.2	508	64.9	523	72.6	537	80.2	550	87.7	563	95.3	575	103	588	111	600	118	613	126
105000	3412	516	65.3	531	73.5	545	81.5	558	89.6	571	97.4	584	105	596	113	607	122	619	130	631	138
110000	3575	539	74.3	553	82.9	567	91.3	580	99.7	592	108	605	116	617	125	628	133	639	142	650	150
115000	3737	563	84.1	576	93.1	589	102	601	111	613	119	626	128	637	137	648	146	658	154	670	163
120000	3900	586	94.8	599	104	611	113	623	122	635	132	647	141	658	150	669	159	680	168	690	177
125000	4062	609	106	622	116	634	126	646	135	657	145	668	154	679	164	690	173	700	183	710	192
130000	4225	633	119	645	129	656	139	668	149	679	159	689	169	700	178	711	188	721	198	731	208
135000	4387	656	132	668	143	679	153	690	163	701	174	711	184	721	194	732	204	742	215	751	225
140000	4550	680	147	691	157	701	168	712	179	723	190	733	200	743	211	753	222	763	232	772	243
145000	4712	703	162	714	173	724	185	735	196	745	207	755	218	765	229	774	240	784	251	793	262
150000	4875	726	179	737	190	747	202	757	213	767	225	777	236	786	248	796	259	805	271	814	282
155000	5037	750	197	760	208	770	220	780	232	790	244	799	256	808	268	817	280	826	292	835	303
160000	5200	773	216	784	227	793	240	802	252	812	264	821	277	830	289	839	301				
165000	5362	797	236	807	248	816	260	825	273	834	286										

VOL CFM	VEL FPM	6.0 RPM	6.0 BHP	7 RPM	7 BHP	8 RPM	8 BHP	9 RPM	9 BHP	10 RPM	10 BHP	11 RPM	11 BHP	12 RPM	12 BHP	14 RPM	14 BHP	16 RPM	16 BHP	18 RPM	18 BHP
40000	1300	471	46.4																		
45000	1462	480	51.1	512	60.3																
50000	1625	490	56.9	521	66.3	550	76.1	579	86.6												
55000	1787	502	63.1	532	73.1	560	83.3	587	93.8	614	105	639	117								
60000	1950	514	69.9	543	80.5	571	91.3	597	102	623	114	648	125	672	137						
65000	2112	528	77.3	556	88.4	583	99.8	609	111	634	123	658	135	681	148	726	174	770	201		
70000	2275	542	85.1	570	97	596	109	621	121	645	134	669	146	691	159	735	186	777	213	818	243
75000	2437	558	93.7	584	106	610	119	634	132	658	145	680	158	703	172	746	199	786	227	825	257
80000	2600	571	102	599	116	624	129	648	143	671	157	693	170	715	184	757	213	797	243	835	273
85000	2762	586	110	613	126	639	141	662	155	685	169	707	184	728	196	769	228	808	259		
90000	2925	602	120	627	135	653	152	677	167	699	182	721	197	741	213	781	244	820	276		
95000	3087	620	131	643	146	666	162	692	180	714	196	735	212	755	228	795	260	832	293		
100000	3250	637	142	660	158	682	175	704	191	729	210	750	228	770	244	809	278				
105000	3412	655	154	678	171	699	188	720	205	741	223	765	243	785	261	823	296				
110000	3575	673	167	695	184	716	202	737	220	757	238	777	257	799	278	838	316				
115000	3737	692	181	713	199	734	217	754	236	774	254	793	274	812	293						
120000	3900	710	196	732	214	752	233	772	252	791	272	809	291	828	311						
125000	4062	730	212	750	231	770	250	789	270	808	290	826	310								
130000	4225	750	228	769	248	788	268	807	289	826	309										
135000	4387	770	246	788	267	807	287	826	308												
140000	4550	791	264	808	286	825	308														

Performance shown is for installation type D - Ducted inlet, Ducted outlet.
Power rating BHP does not include drive losses.
Performance ratings do not include the effects of appurtenances in the airstream.
The most efficient fan selection appears above the solid line.

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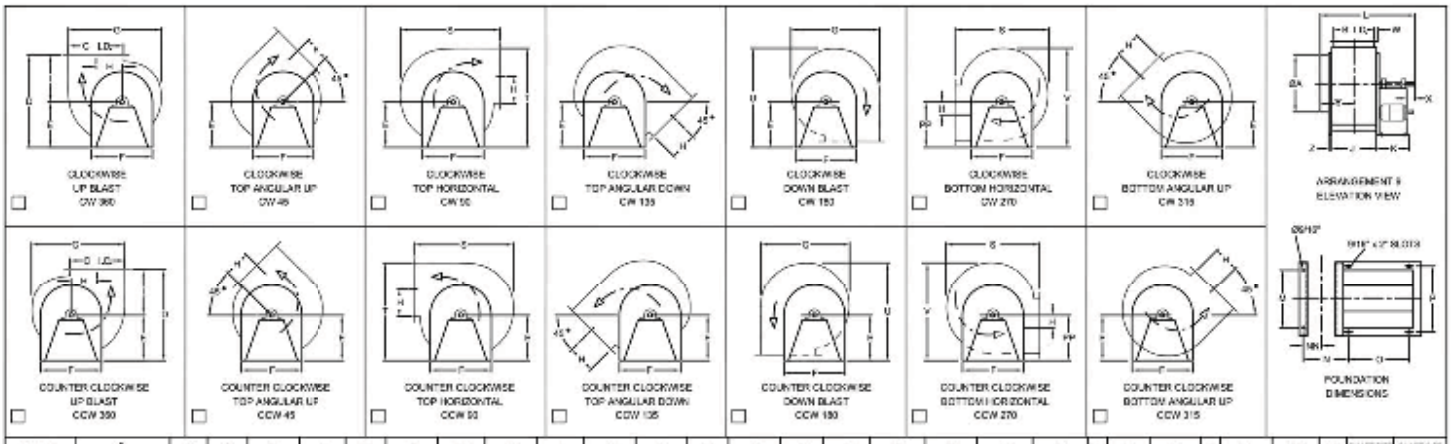
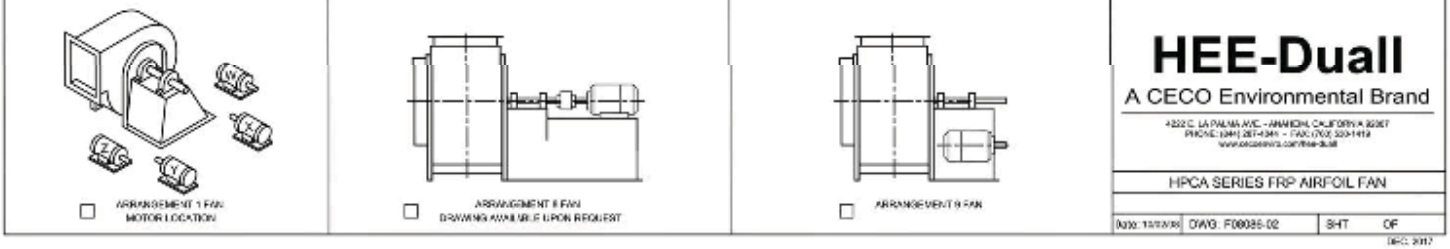


HPCA	I.D.	A D.D.	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	S	T	U	V	W	X	Y	Z	LL	NN	PP	SHAFT SIZE CLASS H	SHAFT SIZE CLASS D
2000	22	22 3/8	16	21 1/2	40 3/8	28 1/4	26 1/2	35 1/2	9 3/8	15 1/8	18 1/2	21	47 3/8	22 1/2	22 1/8	14 1/2	24 1/2	33	45 3/4	43 1/8	41	2	4	15 1/8	2	45 3/8	16 3/8	26	1 7/16	1 15/16
2225	24	24 3/8	18	23	41 3/4	28 1/4	29	39	10 1/8	16 1/2	20 1/2	23 1/2	50 3/8	25	25 1/8	16	27	36 1/8	47 1/2	44 7/8	42 3/4	2	3 1/2	15 3/8	2	48	11 1/4	26	1 7/16	1 15/16
2450	25 3/4	26 1/8	19 1/2	25 1/2	47	38	30	43 1/2	11 3/8	19	22	23 1/2	53 1/8	26	26 5/8	16	28	40	52 3/8	49	46 1/8	2	4 3/8	16 1/8	2	50 1/2	12	28	1 11/16	2 3/16
2700	28 1/4	28 5/8	21 3/4	28 1/2	50 1/4	36 1/4	35	47 3/4	12 7/8	20	24 1/4	24	57 7/8	31	29 1/2	16	33	44	57 3/4	54 1/4	51 1/4	2	4	19 1/4	2	55 3/8	13 1/8	31	1 11/16	2 3/16
3000	32	32 3/8	24	31	56 3/4	38	38	52 1/2	14	22 3/4	27	25	61 7/8	34	33 1/8	16	36	49 1/4	63	59 1/2	56 1/2	3	6 1/2	20 5/8	2	59	14 1/2	34	2 3/16	2 7/16
3300	36	36 3/8	25 1/2	34	62 1/2	38 3/4	42	58 1/2	15 1/2	26 3/4	27 3/8	27 1/2	68 1/2	35	33	19	39	55 3/4	68 3/4	64 5/8	62 1/2	3	5	21 5/8	3	63 1/2	16	37	2 3/16	2 11/16
3650	40	40 1/2	29	38	69 3/4	40 3/4	45 1/2	64 1/2	17 1/2	29	32	29 1/2	75 3/4	41 1/2	35 5/8	19 1/2	42 1/2	61 1/4	77 3/4	73	69 1/2	3	7 1/8	24 1/8	3	69 5/8	17 1/2	42	2 7/16	2 11/16
4025	44 1/2	45	33 1/2	43 3/4	72	41 3/4	50 1/4	71 1/4	19 3/8	30 1/4	35	29 1/2	77 5/8	46 1/4	42 5/8	19 1/2	47 1/4	66	82 3/4	77 1/2	75 1/4	3	7	25 1/8	3	73 5/8	19 1/2	45	2 7/16	2 15/16
4450	49	49 1/2	35 1/2	46 1/4	78	44 3/4	55	77 1/2	21 3/8	33 1/4	38 1/2	30	84 1/8	52	45 1/2	19 1/2	53	72 5/8	89 3/4	83 7/8	83 1/2	3	6 1/2	28	3	78 1/4	21 3/8	51	2 11/16	3 7/16
4900	53 1/2	54	38 1/2	51 1/4	85 3/4	48	62	87	23 7/8	36 3/4	42 3/4	35	90 1/4	57	47 1/4	26	59	80 1/2	98	92 3/4	93	4	7 1/2	29 1/2	3	85 3/4	23 5/8	56	3 15/16	3 7/16
5425	59 3/4	60 1/4	43	56	96 3/8	54 1/8	65	96	26	41 1/2	47 1/2	35	99 1/2	55	55 1/8	24	62	89 1/8	109 1/8	102 3/4	102	4	6	35 7/8	3	96 1/2	25 1/4	61	3 7/16	3 15/16
6000	66 1/2	67	47	62 3/4	102 3/4	58 3/8	74	106 3/8	29 3/8	44 3/8	50 3/4	39 1/2	109	64	57 1/4	29	70	97 1/2	119 5/8	111 1/2	112 1/8	4	9	38 3/8	4	104	28 1/4	67	3 7/16	4 7/16
6600	72	72 5/8	53 1/2	69	112 5/8	68 5/8	80 1/2	117 1/4	32 1/2	49	56 1/8	41	116 1/4	70 1/2	63 1/8	30	76 1/2	107 5/8	131 1/8	122 1/4	122 3/4	4	9 1/4	39 3/4	4	111	29 5/8	73	3 15/16	4 7/16
7300	80	80 5/8	58	75	123 3/8	68 3/8	88	127	34 1/2	56	62 1/2	41	120 3/4	78	69 5/8	30	84	118 1/2	141 3/8	131 7/8	133	4	9 1/2	43 3/8	4	115 1/2	33 1/4	79	3 15/16	4 15/16



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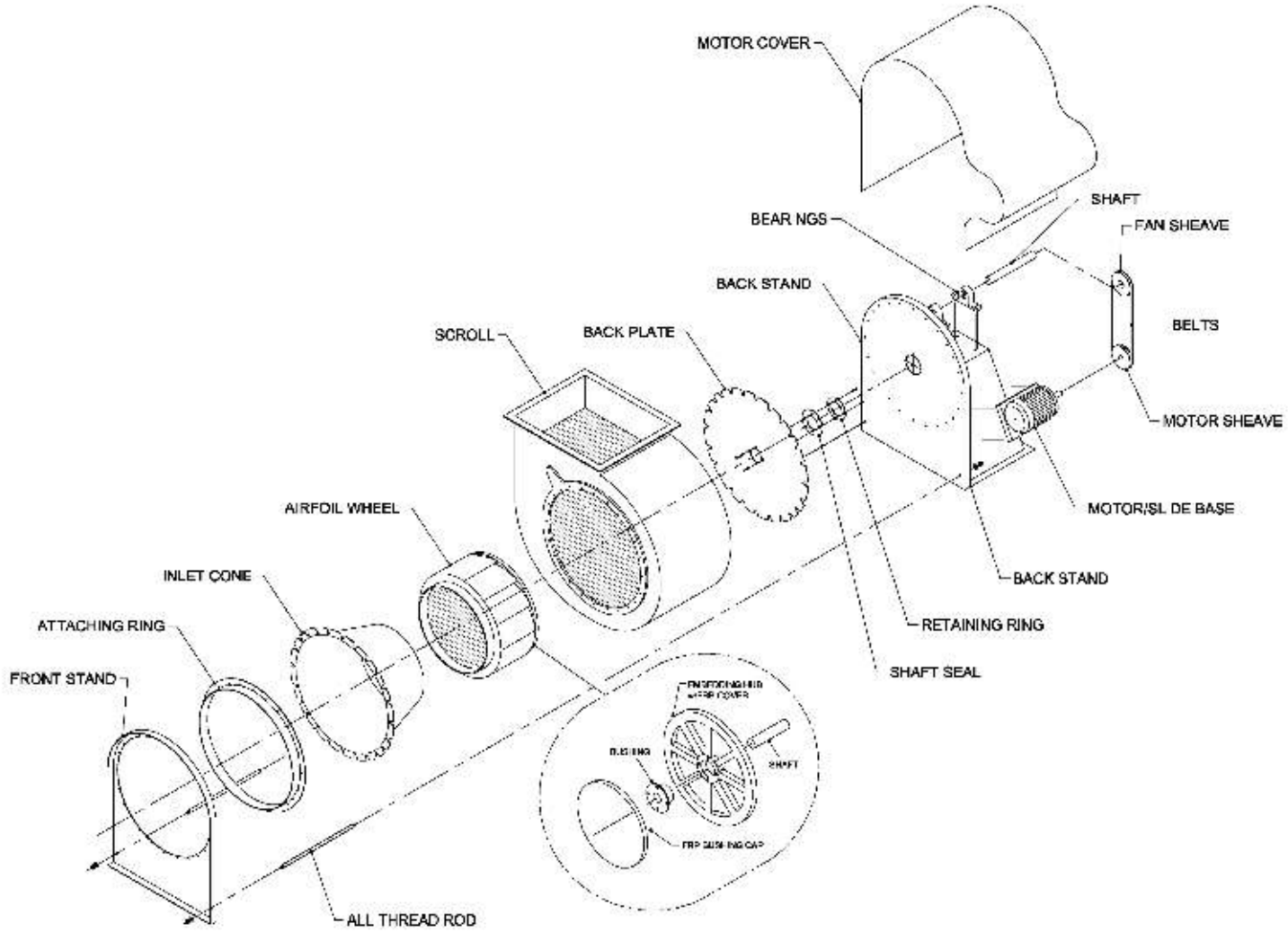
EXPLODED DRAWING OF AN HPCA CENTRIFUGAL FAN
ARRANGEMENT 9 (BELT DRIVEN)



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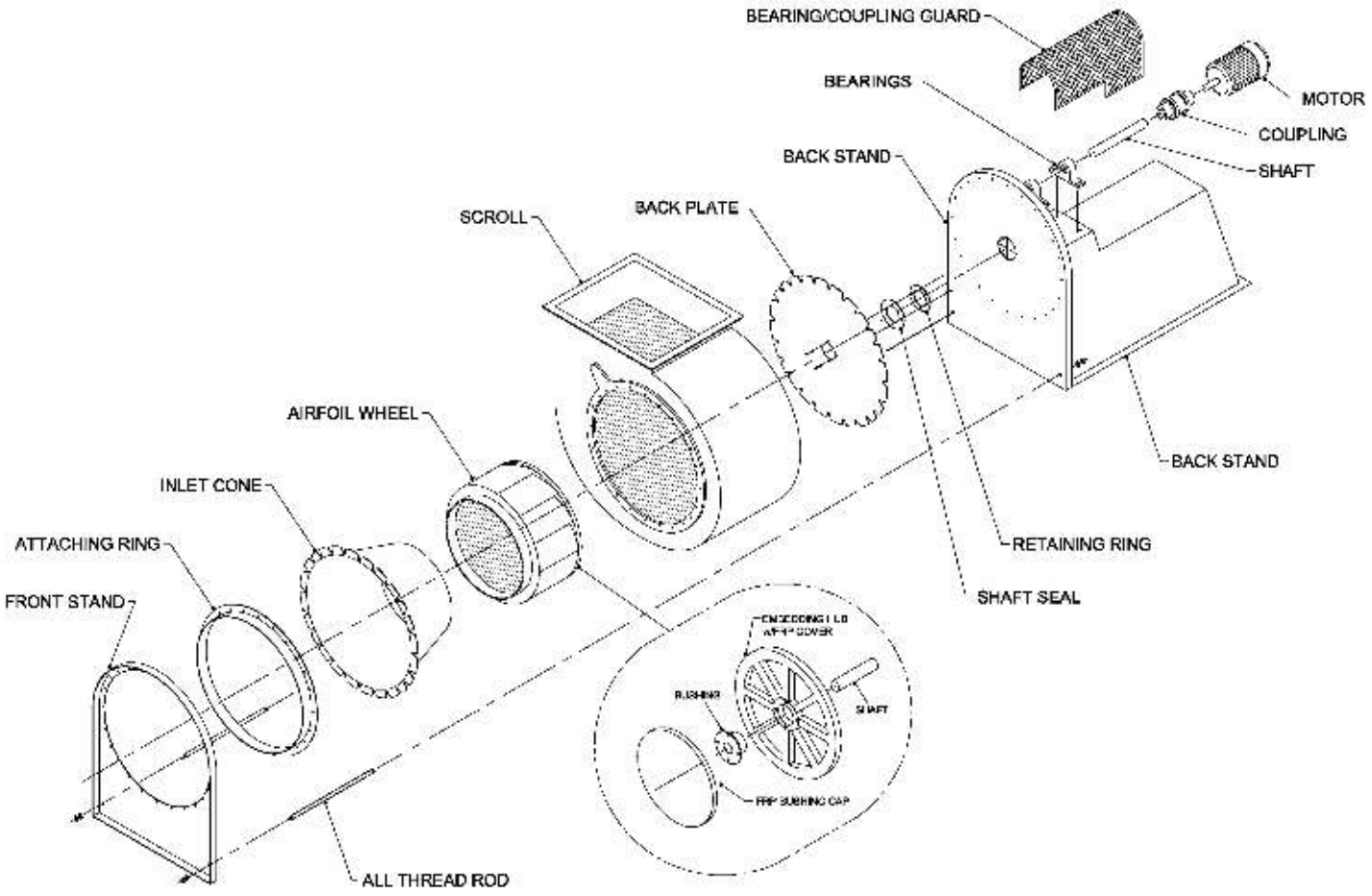
EXPLODED DRAWING OF AN HPCA CENTRIFUGAL FAN ARRANGEMENT 8 (DIRECT DRIVE)



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