



JetStream™ Vane Axial, Adjustable Pitch Fans (VAX Series)

The *JetStream™* Adjustable Pitch Vane Axial fan line was designed specifically to blend aerodynamic performance and ease of application. These fans are suited for HVAC, industrial and mining applications, from 12,000 to 250,000 cfm and 3.5” to 12” total pressure. Based upon over 60 years of experience with axial fan installations, the design of these fans has been refined in order to offer the most reliable, maintainable equipment at an economical price.



Product Range

ALPHA AIR offers a series of vane adjustable pitch vane and tube axial fans for HVAC, industrial and mining applications. Designed by some of the worlds leading aerodynamic fan specialists, ALPHA AIR has a fan to meet a wide range of applications.

Series	Maximum Motor Speed Fan Diameter, in.																	
	24	25	28	30	32	34	36	38	42	45	48	54	60	66	72	78	84	
1800	3550	3550	3550	3550	1780	1780	1780	1780	1780	1780	1780	N/A						
2700	N/A						1780	1780	1780	1780	1780	1780	1180	1180	1180	N/A		
3150	N/A									1780	1780	1780	1780	1180	1180	1180	1180	



Rotor

- Blades cast in ASTM A356 aluminum, with a high tensile steel bolt insert
- Developed from a series of airfoil sections, arranged to offer high efficiency, and low noise characteristics
- Developed for durability in aggressive applications from 10 to 350 hp.
- Hub Rims cast from ASTM A356 aluminum, heat treated to T6 condition
- Carbon steel hubs, bolted to the aluminum hub rim
- Blade pitch is easily adjusted by simply loosening one blade locking nut per blade, setting new pitch and re-tightening. Blade nuts easily accessed by removing the aluminum nose-cap, without having to remove rotor from the fan
- The typical tip clearance between blade and housing is 3 to 5 mm.

Housing

- Fan housing designed with durability and reduced vibration in mind.
- Flanges rolled from steel flat bar, and continuously welded to the casing using submerged arc technology, for smooth continuous weld.
- Housings are $\frac{3}{16}$ " plate for 21" to 36" diameter, and $\frac{1}{4}$ " plate for 38" to 84" diameter. Available in both carbon steel and stainless steels.
- Low vibration designs are available, with the use of back end steadies and more stringent motor and fan wheel balance requirements to ISO G2.5.
- For surface and underground mining applications, heavy duty enhancements are available, including
 - Conduit box roll-over protection
 - Fabricated, steel conduit boxes
 - Heavy duty reinforced housings and wheel track protection
 - Grease nipple protection
 - Reinforced inlet bells
 - Duct adapters designed for use with collapsible fabric ducting
 - A variety of skid-mounted arrangements are available.
- Arrangement 4, direct drive fans are standard offering, utilizing an internal bulkhead and C flange motor connection.
- Arrangement 9, v-belt drive fans are also available with bearings designed to a minimum L_{10} life of 100,000 hours, and a minimum shaft operating to critical ratio of 1.25.



- **JetStream™** Adjustable Pitch Vane Axial fans are designed to utilize a bulkhead design for motor attachment which allows for improved efficiency and air flow characteristics. Foot mounted motor arrangements can be offered, if necessary.
- Standard paint system consists of a zinc oxide primer with an ALPHAIR Blue enamel finish coat. Paint thickness is 2 to 3 mils DFT.

Motors

- C-flange mounted T-frame motors, modified for Totally Enclosed Air Over application.
- Motor leads extended to a conduit box located outside of the air stream, for improved performance and maintainability.
- Rotors mounted on motor shaft using threaded motor shaft and bearing lock-nut.
- Grease lines extended to outside of housing.
- Horizontal and vertical installation designs available.
- Optional items, such as space heaters, RTD's, etc. are available upon request.

