



# JetStream™ Vane Axial Fans



## JetStream Vane Axial Adjustable Pitch Fans (VAX Series)

The *JetStream* adjustable pitch vane axial fan line is specifically designed to blend aerodynamic performance and ease of application. These fans are ideally suited for mining, industrial and HVAC applications ranging from 3,000 to 250,000 cfm and 3.5 to 18 inWg total pressure. Based on over 65 years of experience with axial fan installations, ALPHAIR offers the most reliable, easily maintained equipment at an economical price. Designed by some of the world's leading aerodynamic fan specialists, ALPHAIR VAX fans meet a wide range of applications.

### Product Range

ALPHAIR offers a series of adjustable pitch vane and tube axial fans for HVAC, industrial and mining applications.

Series	Maximum Motor Speed (60 Hz)																
	Fan Diameter, inches																
	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						
2100			3550	3550	3550	1780	1780	1780	1780	1780	1780						
2700							1780	1780	1780	1780	1780	1780	1180	1180	1180		
3150										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 500 hp.
- Hub rims cast from ASTM A356 aluminum, heat treated to T6 condition.
- Carbon steel hub insert bored to suit motor shaft.
- Blade pitch is easily adjusted for the 1800, 2100 and 2700 hub by simply loosening one blade locking nut per blade, setting new pitch and re-tightening. Blade nuts can be easily accessed by removing the aluminum nose cap, without having to remove the rotor from the fan.
- The 3150 hub blades are retained by capscrews and are adjustable from outside the fan.
- The typical tip clearance between blade and housing is  $\frac{1}{8}$ " to  $\frac{3}{16}$ ".



## Housing

- Fan housing designed with durability and low vibration in mind.
- Flanges rolled from steel flat bar and welded to the casing using submerged arc technology for smooth continuous weld.
- Housings are 3/8" plate for 24" to 36" diameter and 1/4" plate for 38" to 84". Commonly available in both carbon and stainless steel.
- Low vibration designs are available with the use of back end motor steadies and more stringent motor and fan requirements to meet precision balance criteria (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
- Arrangement 4: direct drive fans are standard and utilize an internal bulkhead and "C" flange motor connection, which allows for improved efficiency and air flow characteristics. Foot mounted motor arrangements can be offered if requested.
- Arrangement 9: V-belt drive fans with bearings selected for an average life of 100,000 hours, and a minimum shaft operating to critical ratio of 1.25.
- Standard paint system consists of red oxide primer with ALPHAIR blue enamel finish coat available. Special paint finishes to meet any specifications are also available.

## Motors

- C-flange mounted Totally Enclosed Air Over (TEAO) T-frame motors.
- Motor leads extended to a conduit box located outside of the air stream, for improved performance and accessibility.
- Rotors mounted on motor shaft using threaded motor shaft and bearing lock-nut. Taper lock bushing mounting available on request
- Grease lines extended to outside of housing.
- Designs for horizontal and vertical installation are available
- Optional items such as space heaters, RTDs and vibration monitors are available upon request.
- Explosion proof, high specification and IEC frame sizes.

### ALPHAIR

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