



## SERIES 65C GUIDE SPECIFICATION

### **DIRECT DRIVE, ADJUSTABLE PITCH VANEAXIAL FAN, C-FACED MOTOR**

The Direct Drive Adjustable Pitch Vaneaxial Fan, C-Faced Motor shall be manufactured by Hartzell Air Movement, Series 65C. Standard sizes are 35" through 79". The fan shall be a rugged one-piece design. The fan housing shall contain the propeller, motor, and vane section. Vanes shall be aerodynamically designed to recover energy from the air stream. The fan shall be completely assembled, packaged, and ready to install.

The adjustable pitch, direct drive, vaneaxial propeller shall be a 9-bladed airfoil design. Blades shall be cast 319 aluminum with a high strength threaded mounting bolt. Hub shall be cast 319 aluminum and shall be in accordance with Federal Specification QQ-A-601E and ASTM B26. Blades and hub shall be machined with matching tapered shank and bore for accurate fit. The individual blades shall be secured to the hub with a lockwasher and nut. The blades shall be easily adjustable for future changes in capacity without removing the propeller from the motor shaft. The propeller shall be taper bored and attached to the motor shaft utilizing taper lock bushing with key bolted to the propeller. A safety plate, bolted to the motor shaft, shall provide additional attachment means.

Fan housing shall be welded construction and shall have continuously welded seams. Fan housings shall be a minimum of: 7 gauge sizes 35 through 49 and 1/4 plate sizes 57 through 79. All sizes shall have a minimum of 1/4" rolled steel flanges continuously welded to the steel drum. All flanges shall have slotted mounting holes. Motor shall be supported on rigid motor mounting plate supported within C-faced motor mounting tunnel. Heavy gauge vanes shall be welded to motor mounting tunnel and fan housing.

Motor shall be C-face mounted, totally enclosed fan cooled type. Motor shall be pre-wired with electrical leads optionally extended to a watertight conduit box located on the exterior of the fan housing. Extended lube tubes and grease fittings shall be standard when relubricable motor is specified. Fan shall be designed for mounting in any position from horizontal to vertical. Fan shall be suitable for temperatures up to 104°F, based on motor capability of 40°C.

Fan shall be commercial quality carbon steel and welded in accordance with AWS D1.1 standard. Standard surface coating system shall be phosphatized surface preparation and finished with industrial grade air-dry enamel paint.

The fan assembly shall be dynamically balanced at the Hartzell factory prior to shipping. Fans shall be balanced in accordance with AMCA Standard 204-96, fan application category BV-3 (comparable to Grade G6.3). Fans shall be test run in factory at full speed prior to shipment. Vibration levels in horizontal, vertical, and axial positions with filter-in and filter-out shall be recorded. Filter-in vibration levels at the service speed shall not exceed 0.15 inches per second velocity. Filter-out vibration levels for all frequencies shall not exceed 0.25 inches per second. Fans shall be manufactured in accordance with Hartzell's standard quality assurance procedures.



Fan performance shall be based on tests conducted in Hartzell's AMCA accredited test laboratory in accordance with the latest revision of AMCA Standard 210 for air performance and AMCA Standard 300 for sound. Fans shall be licensed to bear the AMCA Certified Ratings Seal for Sound and Air Performance.

**ACCESSORIES:**

- Special Construction - Available in aluminum or stainless steel housing material.
- Protective Coatings - Hot dipped galvanized, Nupon epoxy, inorganic zinc, and catalyzed coal tar epoxy are available upon request.
- Motors - Explosion proof, marine, high temperature, and other special motors can be furnished upon request.
- Inlet Bell - Minimizes inlet pressure losses, thus optimizing airflow.
- Inlet/Outlet Cone - Available for adapting fans to different size duct diameters.
- Inlet/Outlet Guards - Prevent access to rotating propeller.
- Companion Flanges - Mating flanges for ductwork.
- Mounting Brackets - For horizontal mounting on hangers with or without vibration isolators.
- Mounting Feet - To facilitate floor, ceiling or wall mounting.
- Vibration Isolators (Horizontal or Vertical Mount) - Rubber-in-shear or spring type available.
- Sound Muffler - Provides attenuation of excessive noise.
- Lifting Lugs - Provides means to lift and handle fans.
- Non-Sparking Construction - Per customer standards.