



## **SERIES 44V GUIDE SPECIFICATION**

### **SPECIAL DUTY DIRECT DRIVE DUCT VANEAXIAL FAN**

The Special Duty Direct Drive Duct Vaneaxial Fan shall be manufactured by Hartzell Air Movement Series 44V. Standard sizes are 12" through 60". Fans can be supplied with a guide vane section. Performance increases 1" to 4" static pressure with vane section with the same or less horsepower. The fan shall be packaged, completely assembled and ready to install.

The duct axial propeller shall be an airfoil design, 6-bladed, one-piece cast of 319 aluminum in compliance with Federal Specification QQ-A-601E and ASTM B26. (It is the result of many years of research and development and combines the best features of a vaneaxial propeller and the economic performance of a Hartzell duct fan.) Its design is rugged; its function is to move large volumes of air at medium static pressures of 1" to 4". The airfoil propeller shall not have an aerodynamic stall characteristic. Propellers shall be retained on the motor shaft utilizing a split taper bushing. Propellers shall be ground and buff finish.

Fans shall have rolled steel flanges continuously welded to the steel drum. All flanges have mounting holes. Rigid motor mounts provide support for the motor. Motors shall be totally enclosed fan cooled. Extended lube tubes and grease fittings shall be standard when relubricable motors are specified. Blowers shall be designed for mounting in any position from horizontal to vertical.

Fan housings shall be minimum 1/4" rolled commercial quality, carbon steel and continuously welded in compliance with AWS D1.1 standard. Standard surface coating system shall be phosphatized surface preparation 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 to the American National Standards Institute, Std. S2.19-1989 "Balance Quality of Rotating Rigid Bodies", and Grade G6.3. 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 revision of AMCA Standard 210 for air performance and AMCA Standard 300 for sound. Fans shall be licensed to bear the AMCA Certified Air Performance Rating Seal.

### **ACCESSORIES:**

- Special Construction - Available in aluminum, stainless steel, AMCA spark resistant, or USCG 46CFR spark resistant.
- Protective Coatings - Hot dipped galvanized, epoxy, epoxy phenolic, coal tar epoxy, inorganic zinc and vinylester base coatings are available upon request.
- Motors - High efficiency, chemical duty, high temperature, explosion proof, IEEE45 (Marine Duty), nodular iron (Marine Duty), MSHA certified (Mine Duty), 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 Guard - Prevents access to rotating propeller.
- Companion Flanges - Mating flanges for fan.
- Inspection Door - For inspection of the propeller and motor.
- 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.
- Extended Electrical Leads - Motor pre-wired with electrical leads extended to conduit box on fan exterior. Conduit box can be made water tight if desired.
- Flexible Connector - Isolates the fan from the duct system so that vibration will not be transmitted or amplified.
- Air Straightener - to help recover the energy lost by rotating air flows.
- Wheeled Cart - Provides flexibility in handling mine duty fans.
- Mounting Skids - Can be attached to mounting feet to make fan movement easier for Mine Duty fans.
- Overhead Suspension Brackets - Side mounting brackets for vertical or horizontal mounting of fans. Can be used with vibration isolators.