



SERIES 35 GUIDE SPECIFICATION

FIBERGLASS BELT DRIVE DUCT AXIAL FAN

The Fiberglass Belt Drive Duct Axial Fan shall be manufactured by Hartzell Air Movement, Series 35. Standard sizes are 12" through 60". Fans shall be supplied without a guide vane section. The fan shall be packaged, completely assembled and ready to install.

The resin used on fiberglass axial flow fans is Ashland Hetron 693 which is a polyester resin with 3% antimony oxide added to achieve a Class I flame spread rate of below 25 per ASTM E84 tunnel test standards and NFPA Code 91 for blower and exhaust systems, which is OSHA approved. Fan construction shall conform to ASTM Standard D4167 for fiber reinforced plastic fans and blowers.

Fiberglass propellers, fan housings, and components shall be capable of being used in temperatures up to 200° F. The propeller shall be airfoil design, 6 blade one piece construction. The propeller shall be solid fiberglass with an aluminum insert molded into the hub for secure attachment to the shaft. The airfoil propeller shall not have an aerodynamic stall characteristic. Fan housings shall be constructed of solid fiberglass including the flanges which have drilled mounting holes. Motor mountings are steel plate coated with resin and mounted on the drum exterior with glass mat, cloth and resin. The encapsulated assembly base, Type 304 stainless steel riser bolts and epoxy coated motor base provide support for the motor. Motors shall be open end protected. All other hardware shall be Type 304 stainless steel.

Fan shafts shall be ground and polished Type 304 stainless steel. Bearings shall be located in a sealed drive compartment to prevent corrosive element entry. Bearings shall be heavy duty, self-aligning, and shall have extended lube tubes and be relubricable for continuous service with a minimum L10 life of 50,000 hours. Variable pitch sheaves shall be standard on fans up to and including 10 HP and belts sized for continuous service. Fans shall be designed for mounting in any position from horizontal to vertical.

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 and in accordance with 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:

- Motors - OEDP standard. Explosion proof, chemical duty, high temperature and other special motors are available upon request.
- Steel Inlet Bell - Minimizes inlet pressure losses, thus optimizing airflow, epoxy coated.

- Inlet/Outlet Guard - Prevents access to rotating propeller, steel, epoxy coated or stainless steel.
- Companion Flanges - Mating flanges for fan, solid fiberglass.

- **Mounting Feet** - To facilitate floor, ceiling, wall or vibration isolator mounting, steel, epoxy coated.
- **Vibration Isolators (Horizontal or Vertical Mount)** - Rubber-in-shear or spring type available.
- **Abrasion/Erosion Resistant Coating (HartKoate)** - Helps prevent premature deterioration of equipment in environments where uncoated fans may fail. Particularly appropriate when water mist and/or abrasive particles exist in the air stream.
- **Hi-Cor Construction** - Extra flange mounting holes are provided. All airstream surfaces exposed to the corrosive environment will be reinforced with a layer of surfacing veil. An additional final coat of resin will be applied for extra corrosion resistance.
- **Electrical Grounding** - Interior airstream surfaces can be coated with a "carbon rich" resin coat and grounding straps secured from the side of the housing to the fan motor. All that remains to effectively ground the airstream is to ground the fan motor at the time of installation.
- **Extended Electrical Leads** - For special wiring requirements.
- **Alternate Resins** - Dow Derakane 510-A vinylester, brush coating of Reichhold Dion 6694.
- **Stack Cap and Curb Panel** - Converts fiberglass duct axial fan to upblast roof ventilator with backdraft dampers, solid fiberglass, and stainless steel hardware.
- **Ventilator Hood** - For exhaust or intake flow, protects fan from weather, epoxy coated steel mounting frame hinged. Optional F.G. dampers for exhaust.
- **Motor Cover** - All fiberglass with louvers positioned for horizontal or vertical mounting.
- **Drive Guard** - Steel, epoxy coated for safety. Indoor use only.
- **Special Hardware** - 316 stainless steel or Monel for special chemical environments.