



SERIES 34 GUIDE SPECIFICATION

FIBERGLASS BELT DRIVE DUCT FAN

The Fiberglass Belt Drive Duct Fan shall be manufactured by Hartzell Air Movement. Standard sizes are 12" through 60". The fan shall be packaged, completely assembled and ready to install.

The resin used on fiberglass axial flow fans shall be 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.

The propeller shall be airfoil design 6 bladed one piece construction of solid fiberglass with an aluminum insert molded to the hub for secure attachment to the shaft through 48" size. The 54"/60" sizes shall be either 4 or 6 blades clamped in a 2-piece hub. The hub shall be assembled with Type 304 stainless bolts and mounted on fan shaft with a tapered bushing. A raised ring shall allow the bushing and locking bolts to be covered with a fiberglass and resin patch to protect them from corrosives. Fiberglass propellers, fan housings, and components are capable of being used in temperatures up to 200° F. Fan construction shall conform to ASTM Standard D4167 for fiber reinforced plastic fans and blowers.

Fan housings shall be constructed of solid fiberglass including the flanges which have drilled mounting holes. Motor mountings shall be 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 shall be 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", 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 on 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.
- Alternative Resins - Dow Derakane 510-A vinylester, brush coating of Reichhold Dion 6694.
- Motor Cover - All fiberglass with louvers positioned for horizontal or vertical mounting.
- Fiberglass Stack Cap or Reversible Hood and Curb Panel - For making a roof ventilator to suit special requirements.
- Special Hardware - 316 stainless steel or Monel for special chemical environments.