



SERIES 29 GUIDE SPECIFICATION

FIBERGLASS DIRECT DRIVE DUCT AXIAL FAN

The Fiberglass Direct Drive Duct Axial Fan shall be manufactured by Hartzell Air Movement, Series 29. Standard sizes are 12" through 60". Fans will 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. Construction shall conform to ASTM Standard D4167 for fiber reinforced plastic fans and blowers. The duct axial propeller shall be airfoil design, 6 bladed one piece construction. The propeller shall be die formed of cloth mat plus woven roving construction of 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 are constructed of solid fiberglass including the flanges which have drilled mounting holes. Interior and exterior surfaces of the housing shall have one coat of heavy resin applied. Rigid solid fiberglass motor mounts provide support for the motor. Motors shall be totally enclosed air over type. 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. Standard internal hardware is austenitic stainless steel. Fiberglass fans may be used in temperatures up to 200° F.

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.

ACCESSORIES:

- Motors - Explosion proof, extra tough, high temperature, and other special motors can be furnished 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, or wall mounting, steel, epoxy coated.
- Vibration Isolators (Horizontal or Vertical Mount) - Rubber-in-shear or spring type available.
- Stack Cap and Panel - Converts fiberglass duct axial fan to upblast roof ventilator with backdraft dampers, solid fiberglass, and stainless steel hardware.
- Extended Electrical Leads - Motor shall be pre-wired with electrical leads extended to a watertight conduit box located on the exterior of the fan housing.
- Abrasive/Erosive 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 airstream.
- 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.
- Inspection Door - Allows periodic visual inspection of wheel, fastened with stainless steel bolts and gasketed for tight seal.