



Universal Fan & Blower Ltd.

FBIX Backward Inclined Centrifugal Fan

Licensed to bear the AMCA seal for sound and air performance

- Fans to be FRP composite construction backward inclined centrifugal model **FBIX** as manufactured by **Universal Fan & Blower Ltd.** and shall be fabricated in accordance with ASTM Standard Specification D4167 - Rev 97 (reapproved 2002) for Fiber Reinforced Plastic Fans & Blowers and CGSB 41-GP-22 Standard for Process Equipment.
- The fan housing shall be of solid FRP composite one-piece construction (no center flange), fabricated by open molding using corrosion grade resins. A glass veil will be used on all airstream surfaces giving a resin rich liner for optimum chemical resistance. Fasteners shall be 316ss and where exposed to the fan air stream they will be fully encapsulated within the FRP laminate to achieve maximum torque capability with no deviation of the air stream surfaces. The housing shall be supplied with an undrilled outlet flange and a slip type inlet. The exterior of the fan housing shall have a UFBL grey gel coat finish containing U.V. inhibitor to prevent ultra violet light degradation.
- The fan wheel shall be backward inclined design of solid FRP construction with a wheel cone for a smooth transition from the inlet funnel. The wheel shall be positively locked onto a stepped shaft by means of a 316ss retaining plate, which is protected from the airstream by FRP encapsulation. (Taper lock bushings are not acceptable.). The wheel shall be balanced statically and dynamically as per ANSI/AMCA Standard 204.96 Balance Quality & Vibration Levels for Fans to grade G 6.3.
- The solid FRP fan inlet funnel shall be a venturi design interfacing with the wheel cone to maximize aerodynamic efficiency.
- Shafts will be 316ss accurately turned & gauged for accuracy and sized that the first critical speed is a minimum of 1.35 times the maximum operating speed.
- Shaft Seal shall be Teflon, precision cut for a close tolerance fit with the fan shaft, encased within an FRP seal box with encapsulated 316ss fasteners.
- Bearings shall be pillow block design sized to have a minimum life of 50,000 hours based on AFMBA L₁₀ standard.
- Support structure shall be steel construction with a minimum two coat epoxy finish using Amercoat 370 high build coating with a dry film thickness of 6-8 mils. Colour shall match the fan housing.
- Prior to shipment all fans shall be mechanically test run and trim balanced to ensure vibration levels are in keeping with ANSI/AMCA Standard 204.96.

Note : The addition of UFBL Features to the standard fan will amend the specification accordingly