



## Universal Fan & Blower Ltd.

### FRBJ Radial Bladed Junior Centrifugal Fan

- Fans to be FRP composite construction radial blade centrifugal model **FRBJ** as manufactured by **Universal Fan & Blower Ltd.** and shall be fabricated in accordance with ASTM Standard Specification D4167-97 (re approved 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 (no center flange) construction, fabricated by open molded methods using Vinyl Ester resin. 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 airstream they will be embedded in the FRP laminate to achieve maximum torque capability with no deviation of the airstream surfaces. The housing shall be supplied with an outlet flange pre drilled in the factory and a slip type inlet. The exterior of the fan housing shall have a grey gel coat finish containing U.V. inhibitor to prevent ultra violet light degradation.
- The fan wheel shall be radial design of solid FRP construction using a Vinyl Ester resin and shall be permanently bonded onto the stepped fan shaft. (Taperlock bushings or setscrew locking 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.
- Shafts will be 316ss accurately turned & gauged for accuracy and sized so 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 L<sub>10</sub> 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*