



SERIES 41U GUIDE SPECIFICATION

FIBERGLASS BACKWARD CURVED UTILITY SET

The belt drive Fiberglass Backward Curved Utility Set shall be manufactured by Hartzell Air Movement, Series 41U, Arrg. 10. Standard sizes are 12", 18" and 24". Rotation, as determined by the drive side of the fan, shall be clockwise or counter-clockwise. Fan housing shall be field rotatable and the discharge shall be any of the eight AMCA standard positions. The fan shall be completely assembled, packaged and ready to install.

The wheel type shall be FA. The resin used on the solid fiberglass wheel shall be Dow Derakane 510-A vinyl ester. Blades shall be backward curved to provide non-overloading, highly efficient operation. The wheel shall have a totally encapsulated aluminum core insert for secure attachment to the shaft. The wheel shall be one-piece, resin transfer molded, without hand lay-up or assembly of components. The fan shall be suitable for temperatures up to 200° F.

The fan housing shall be constructed of Ashland Hetron 693 polyester resin and glass fiber with 3% antimony trioxide added to achieve Class I flame spread below 25. Fan construction shall conform to ASTM Standard D4167 for fiber reinforced plastic fans and blowers. All fiberglass surfaces shall be protected with a minimum 10 mil thickness of chemical, flame and ultraviolet resistant resin. The inlet cone shall be solid fiberglass. The entire housing shall have a finish coat of resin to provide superior protection and smooth airflow. All airstream hardware shall be 304 stainless steel. The fan drive base shall be epoxy coated steel.

The fan shaft shall be ground and polished carbon steel with an FRP sleeve in the airstream. Bearings shall be heavy-duty, self-aligning, with extended lube tubes for continuous service, with a minimum of 50,000 hours L_{10} life. A neoprene shaft seal shall be located where the shaft enters the housing with a neoprene shaft slinger between the seal and wheel. V-belt drives shall be sized for continuous service.

The fan assembly shall be dynamically balanced at the Hartzell factory prior to shipping. Fans shall be balanced in accordance with AMCA Standard 204-96, fan application category BV-3 (comparable to 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 the latest revision of AMCA Standard 210 for air performance and AMCA Standard 300 for sound. Fans shall be licensed to bear the AMCA Certified Sound and Air Performance Rating Seal.

ACCESSORIES:

- Weather Cover - Covers drive and shaft. Available in epoxy coated steel.
- Safety Guard - Fits on inlet or outlet of fan. Made of epoxy coated steel.
- Vibration Isolators Rails - For horizontal floor mount. Available in rubber-in-shear or spring type.
- Drain - PVC pipe assembled in housing, 1" female fitting.
- Hi-Cor Construction - Extra flange mounting holes. All air stream surfaces have a surfacing veil and an additional coat of resin.

- Abrasion/Erosion Resistant Coating (HartKoate) - Particularly useful when water mist and/or abrasive particles exist in the air stream.
- Electrical Grounding - Air stream surfaces are coated with a carbon rich coating with grounding straps to the motor frame. User must properly ground the equipment at the installation.
- Motors - OEDP standard. TEFC and other special motors are available upon request.
- Access Door - Raised, bolted door held in place with stainless steel bolts and gasketed.
- Inspection Door - Small opening for visual inspection of wheel. Gasketed and held in place with stainless steel bolts.
- Flanged Inlet/Outlet - Solid fiberglass flanges, available drilled or undrilled.
- Special Hardware - 316 stainless steel or Monel for special chemical environments.
- Outlet Dampers - Epoxy coated steel or stainless steel, either parallel or opposed blade type. Solid fiberglass backdraft and volume control dampers are also available.