

SERIES 03 GUIDE SPECIFICATION

BACKWARD CURVED CENTRIFUGAL FAN, SINGLE WIDTH

The belt drive Backward Curved Centrifugal Fan, Single Width shall be manufactured by Hartzell Air Movement, Series 03, ARRG. 1, 9, 9M, or 10, Class I, II, or III. Wheels available are the backward curved (BC, 12" - 60") or the airfoil (BA, 18" - 60"). Rotation, as determined by the drive side of the fan, shall be clockwise or counter-clockwise. Fan housing, for sizes 12 through 33, shall be field rotatable and the discharge shall be any of the eight AMCA standard positions. Sizes 36 through 60 shall be a fixed construction for the rotation and discharge specified. The fan shall be packaged, completely assembled and ready to install, except for ARRG. 1, which is less motor and drive.

The fan housing and base shall be a heavy gauge commercial quality carbon steel suitable for temperatures up to 300° F. and with modifications up to 800° F. (ARRG. 10 limited 250° F. to 600° F.). The housing and wheels shall be continuously welded in compliance with AWS D1.1 standard. The wheels shall be commercial quality carbon steel with single thickness airfoil blades or double thickness hollow airfoil blades and have non-overloading horsepower characteristics. The wheel shall be mounted to the fan shaft with a split taper bushing. The shafts shall be ground and polished. The fan bearings shall be heavy duty, self-aligning ball or roller type (depending on fan size, motor HP, and performance) relubricatable for continuous service. They shall have a minimum L10 life of 50,000 hours. The belts shall be an oil, heat, and static-resistant type, oversized for continuous duty. Lifting lugs are a standard feature, for ease of handling and installation.

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. The fan performance shall be based on tests conducted in Hartzell's AMCA accredited laboratory and conducted 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 for the BC wheel only.

ACCESSORIES:

- Motors - TEFC standard. OEDP and other special motors can be furnished upon request.
- Special Construction - Other material such as stainless steel and aluminum are available.
- Drain Pipe Coupling - Pipe coupling welded to the housing at its lowest point; female pipe has threaded plug.
- Access Door - For inspection and cleaning of wheel, bolted and gasketed, or a hinged, quick release type.
- Vibration Isolators - Rubber-in-shear or spring type available.
- Flanges Inlet/Outlet - Available with or without mounting holes.
- Guards - Provides protection when unit is operating at a working level. Inlet, outlet and drive/shaft guards are available.

- Weather Cover - Combines guarding of motor and drive as well as providing protection from the weather.
- Spark Resistant Construction - AMCA Types A, B and C are available.
- Shaft Seals - Standard neoprene (up to 300° F.), ceramic (up to 800° F.) or other mechanical seals are available.
- High Temperature (300° to 800° F.) - Heat slinger and shaft heat deflection plate provides air movement over inboard bearing and reduces heat conduction through shaft. Motor heat shield protects motor from radiated heat from housing on ARR.G. 9 units.
- ARR.G. 1 Sub-Base - Common Structural support for ARR.G. 1 fan and motor.
- 9M Sub-Base - Motor sub-base to accommodate larger motor in horizontal position.
- Split Housing - Allows removal of the wheel and shaft without distributing the fan inlet.
- Coatings - Standard surface coating system shall be phosphatized surface preparation with industrial grade air dry enamel paint. Hot dipped galvanized, epoxy, inorganic zinc, and catalyzed coal tar epoxy coatings are available upon request.