

SPECIAL SPECIFICATION

SECTION 15836S

POWER VENTILATORS

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Roof and wall exhausters and cabinet and ceiling exhaust fans for mechanical systems.

1.02 RELATED SECTIONS

- A. **Section 13085S – Seismic Protection**
- B. Section 15060S - Hangers and Supports.**
- C. Section 15070S - Vibration Isolation.
- D. Section 15170S - Motors**
- E. Section 15891S - Ductwork.**
- F. Section 15832S - Axial Fans.
- G. Section 15834S - Centrifugal Fans.
- H. Section 15950S - Testing, Adjusting and Balancing.**

1.03 REFERENCES

- A. AMCA 99 - Standards Handbook.
- B. AMCA 210 - Laboratory Methods of Testing Fans for Rating Purposes.
- C. AMCA 300 - Test Code for Sound Rating Air Moving Devices.
- D. AMCA 301 - Method of Publishing Sound Ratings for Air Moving Devices.

1.04 SUBMITTALS

- A. Include fan curves with specified operating point clearly plotted.
- B. Include sound power levels for both fan inlet and outlet at rated capacity.
- C. Indicate special coating when required.
- D. Provide operation and maintenance manual.

1.05 QUALITY ASSURANCE

- A. Performance Ratings: Conform to AMCA 210 and bear the AMCA Certified Rating Seal.
- B. Sound Ratings: AMCA 301, tested to AMCA 300.
- C. Fabrication: Conform to AMCA 99.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

- A. Acme.
- B. Carnes.
- C. Cook.
- D. Greenheck.
- E. Penn.

2.02 ROOF EXHAUSTERS

- A. Centrifugal or Axial Fan Unit: Backward inclined or airfoil design, v-belt or direct driven, with spun aluminum housing; resilient mounted motor and drive assembly; 1/2-inch mesh, 16 gage aluminum birdscreen; square base to suit roof curb with continuous curb gaskets; secured with cadmium plated or stainless steel bolts and screws.
- B. Roof Curb: 12 inches high with continuously welded seams, built-in cant strip, 1-inch insulation and curb bottom, hinged curb adapter and factory installed door nailer strip.

Where scheduled, provide interior baffle with acoustic insulation and increase curb height as required.

- C. Disconnect Switch: Factory wired, non-fusible, in housing for thermal overload protected motor.
- D. Backdraft Damper: Gravity activated, aluminum multiple blade construction, felt edged with nylon bearings.
- E. Sheaves: Cast-iron or steel, dynamically balanced, bored to fit shafts and keyed; adjustable pitch motor sheave selected so required rotations per minute is obtained with sheaves set at mid-position; and will not overload motor when adjusted to maximum pitch; fan shaft with self-aligning pre-lubricated ball bearings.
- F. Apply three coats of air dried Heresite coating both internal and external to all roof exhausters from corrosive areas.

2.03 WALL EXHAUSTERS

- A. Centrifugal or Axial Fan Unit: V-belt or direct driven, with spun aluminum housing; resiliently mounted motor and drive assembly; 1/2-inch mesh 16 gage aluminum or galvanized steel bird screen; secured with cadmium plated or stainless steel bolts and screws.
- B. Disconnect Switch: Factory wired, non-fusible, in housing for thermal overload protected motor.
- C. Backdraft Damper: Gravity activated, aluminum construction, felt edged with nylon bearings.
- D. Sheaves: For V-belt drives, provide cast iron or steel, dynamically balanced, bored to fit shafts and keyed; adjustable pitch motor sheaves selected so required rotations per minute is obtained with sheaves set at mid-position; fan shaft with self-aligning pre-lubricated ball bearings.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. Install in accordance with manufacturer's instructions.
- B. Secure roof exhausters with lag screws to roof curb.
- C. Install flexible ductwork connections when fan connects to ductwork.

- D. Provide all ventilating and exhaust fans with integral vibration isolation or mount or suspend unit with vibration isolators.

3.02 **PAINTING**

- A. Provide equipment with factory finish in accordance with the manufacturer's standards. Touch up scratches and marks from handling and installation with masking enamel to match manufacturer's color.
- B. Where exhaust fans are required to have Heresite coating, have units factory finished with required number of coats prior to shipping to the job site.

END OF SECTION