

SECTION 233429 - FANS: CENTRIFUGAL, CEILING MOUNTED

PART 1 - GENERAL

1.1 SCOPE

- A. Provide ceiling mounted light duty centrifugal fans with characteristics indicated.

1.2 SHOP DRAWINGS

- A. Refer to requirements of Section entitled "General Mechanical Provisions".

1.3 CERTIFIED PERFORMANCE

- A. Be AMCA certified as to both sound and performance ratings.

1.4 MANUFACTURER

- A. Design Basis: Basis of design is similar to Acme Master-ette Model V Series and Greenheck CSP Series or as scheduled on drawings.
- B. Acceptable Manufacturers: Greenheck Fan and Ventilator Corporation; Ilg Industries, Inc.; Powerline, Inc.; Power Ventilator Company, Loren Cook Company; Acme Engineering and Manufacturing Corporation; Penn Ventilator Company, Captive Aire or equal.

PART 2 - PRODUCTS

2.1 FAN HOUSING

- A. Fan housing including longitudinal, traverse, and diagonal stiffeners, motor mounts, bearing and drive supports shall be constructed of steel. Entire fan housing shall be internally lined with ½-inch thick or greater, three pound per cubic foot density fiberglass acoustical duct liner with a stabilized surface. Liner shall be held in place with adhesive and mechanical fasteners. All insulation and adhesives shall meet requirements of NFPA 90A as to flame spread and smoke developed ratings. Housing, including all bracing, stiffeners and motor mounted assembly shall be factory finished with a baked on alkyd enamel finish over a corrosion resistant primer. Removable panel in bottom of housing for complete access to motor and fan.

2.2 CEILING INLET GRILLE

- A. Steel or aluminum: Baked enamel finish.

2.3 FAN WHEEL

- A. Shall be centrifugal type and shall be statically and dynamically balanced. Single or twin impeller as necessary to provide indicated performance.

2.4 FAN MOTOR

- A. Permanently lubricated shaded pole motor mounted on resilient isolators to minimize vibration and noise.

2.5 BACK DAMPER

- A. Mounted in throat of fan discharge.

2.6 DRIVE ASSEMBLY

- A. Drive shall be direct drive type as indicated on drawings, and shall conform with the requirements of Section entitled "General Mechanical Provisions".

2.7 DISCONNECT SWITCH

- A. Fans shall include factory mounted disconnect switches prewired to the drive motor.

2.8 SPEED CONTROL

- A. Solid state speed controller for speed reduction to 40% Mounted on housing or as otherwise indicated.

PART 3 - EXECUTION

3.1 PLACEMENT AND MOUNTING

- A. Fan locations shall be essentially as shown on drawings; however, actual fan placement shall be verified using field measurements and data relating to equipment approved for actual installation on this project. Mount fan in strict accordance with manufacturer's instructions.

3.2 TEST AND BALANCE

- A. All fan performance shall be certified by test and balance procedures as specified in section describing test and balance procedures.

END OF SECTION 233429