SECTION 23 37 23

HVAC GRAVITY VENTILATORS AND LOUVERS

1.0 GENERAL

1. DESCRIPTION
   1. All work specified in this Section is governed by the Common Work Results for HVAC Section 23 05 00.
   2. This Section 23 37 23 and the accompanying drawings cover the provisions of all labor, equipment, appliances and materials, and performing all operations in connection with the fabrication, construction and installation of the louvers, air inlet and air outlet devices as specified herein and as shown.
   3. Coordinate with Architectural plans and specifications for all louvers subject to public view. Architectural documents shall supersede this specification section, except Architectural louvers must meet the free area noted in the Division 23 plans, and louvers exposed to rain must be stormproof.
2. INTENT
   1. It is the intent of this Section of the specifications to provide complete, operable, finished louvers, air inlet and air outlet devices as shown and specified which are free of leaks.
3. BASIS OF DESIGN
   1. The basis of design is as outlined for each louver and device in the 2.0 PRODUCTS subsection. Any proposed substitutions shall be proven equal in all respects to the equipment specified as the basis of design.

2.0 PRODUCTS

1. STORMPROOF LOUVERS
   1. Louvers shall be stormproof, depth to match the width of the wall but no less than 4” deep, and of all-welded construction fabricated from 12 gauge extruded aluminum alloy 6063-T5. Blades shall be slanted at 45 degrees and feature an integral water baffle.
   2. Louvers shall be fitted with a 1/2" mesh 16 gauge aluminum birdscreen in an aluminum frame.
   3. Finish shall be 70% PVDF in a color selected by the Architect at the time of submittal review. Finish shall have a minimum of a 10 year warranty.
   4. The performance standards shall be certified by the Manufacturer in accordance with the AMCA Certified Ratings Program and the louver shall carry the AMCA Seal.
   5. Performance Standards
      1. Maximum static pressure drop at 600 FPM velocity through the free area - 0.065" W.C.
      2. No water penetration at up to 760 FPM velocity through the free area.
      3. Minimum free area in relation to gross overall area - 53%.
   6. The basis of design is Greenheck. Acceptable equal manufacturers are Louvers & Dampers, Inc., Airolite, Ruskin, Greenheck, Pottorff, Nailor, and Construction Specialties.
2. GRAVITY INTAKE AND RELIEF HOODS
   1. Hoods shall be constructed from 0.063" thick aluminum sheets with rolled interlocking seams or all welded construction.
   2. Relief hoods shall be fitted with a 1/2" x 1/2" galvanized birdscreen and backdraft damper.
   3. Intake hoods shall be fitted with 1” thick cleanable filters.
   4. All hoods shall be provided complete with 12" high roof curbs. Roof curbs shall be of aluminum construction, insulated, canted and complete with wood nailer strips. Insulation shall meet NFPA 25/50 flame spread/smoke developed ratings.
   5. All hoods with a throat area of 12 square feet or less shall have hinged hoods.
   6. Performance Standards
      1. Maximum total pressure drop at 600 FPM throat velocity through the free area.
         1. Intake Hoods - 0.125" WC
         2. Relief Hoods - 0.08" WC
   7. The basis of design is Greenheck Fabra Hood. Acceptable equal manufacturers are Louvers & Dampers, Inc., and Carnes.

3.0 EXECUTION

1. INSTALLATION
   1. Units shall be installed as indicated and in conformance with the manufacturer's recommendations. Coordinate the actual devices to be provided with all trades.
   2. All devices shall be free of leaks, provided completely finished, trimmed, adjusted, cleaned and ready for use. They shall be properly secured to the structure.
   3. Louvers with ductwork connections or future duct connections (louvers for future tenant connection) shall have a minimum of 12” deep insulated sheetmetal plenum back-box.
   4. Insulated sheetmetal blank-offs shall be provided over all inactive sections or sections for future tenant use of louvers where the Architectural size exceeds the mechanical requirements.

END OF SECTION