

## SECTION 238800 - LOUVERS, AIR INLET AND AIR OUTLET DEVICES

### PART 1 - GENERAL

#### 1.1 DESCRIPTION

- A. All work specified in this section is governed by the Mechanical General Section 230100.
- B. This Section 238800 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.

#### 1.2 INTENT

- A. 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.

#### 1.3 BASIS OF DESIGN

- A. The basis of design is as outlined for each louver and device in the PART 2 - PRODUCTS subsection. Any proposed substitutions shall be proven equal in all respects to the equipment specified as the basis of design.

### PART 2 - PRODUCTS

#### 2.1 STORMPROOF LOUVERS

- A. Louvers shall be stormproof, 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.
- B. Louvers shall be fitted with a 1/2" mesh 16 gauge aluminum birdscreen in an aluminum frame.
- C. Finish shall be Duranar Kynar 500 in a color selected by the Architect at the time of submittal review.
- D. 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.
- E. 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%.
- F. The basis of design is Greenheck. Acceptable equal manufacturers are Louvers & Dampers, Inc., Construction Specialties, Arrow United or Nailor Industries.

#### 2.2 GRAVITY INTAKE AND RELIEF HOODS

- A. Hoods shall be constructed from 0.063" thick aluminum sheets with rolled interlocking seams or all welded construction.
- B. Relief hoods shall be fitted with a 1/2" x 1/2" galvanized birdscreen and backdraft damper.
- C. Intake hoods shall be fitted with 1 inch thick cleanable filters.
- D. 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.
- E. All hoods with a throat area of 12 sq. ft. or less shall have hinged hoods.
- F. Performance Standards
  - 1. Maximum total pressure drop at 600 FPM throat velocity through the free area.
    - a. Intake Hoods - 0.125" W.C.
    - b. Relief Hoods - 0.08" W.C.
- G. The basis of design is Greenheck Fabra Hood. Acceptable equal manufacturers are Louvers & Dampers, Inc. and Carnes.

### **PART 3 - EXECUTION**

#### **3.1 INSTALLATION**

- A. Units shall be installed as indicated and in conformance with the manufacturer's recommendations. Coordinate the actual devices to be provided with all trades.
- B. 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.
- C. Insulated sheetmetal blank-offs shall be provided over all inactive sections of louvers where the architectural size exceeds the mechanical requirements.

**END OF SECTION 238800**