

SECTION 15540

POWER VENTILATORS

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. Centrifugal direct drive roof exhausters
 - 2. Centrifugal belt drive roof exhausters
 - 3. In-line cabinet fans
 - 4. Centrifugal direct drive sidewall exhausters
 - 5. Centrifugal belt drive sidewall exhausters

- B. Related Sections:
 - 1. Section 00700 "General Conditions."
 - 2. Section 00800 "Supplementary Conditions."
 - 3. Section 07800 "Roof Penetrations"
 - 4. Section 15100 "Mechanical Materials & Methods."
 - 5. Section 15600 "Ductwork."
 - 6. Section 15610 "Ductwork Accessories."
 - 7. Section 15800 "Testing Adjusting & Balancing."

1.02 REFERENCES

- A. Comply With the Following Standards:
 - 1. ANSI/UL 250-1984 "Power Ventilators."
 - 2. AMCA Publications 211 & 311.

1.03 SYSTEM DESCRIPTION

- A. Performance Requirements:
 - 1. Powered exhausters shall meet the performance requirements as scheduled on the contract documents.

1.04 SUBMITTALS

- A. Product Data:
 - 1. Roof exhausters
 - 2. Cabinet fans
 - 3. Sidewall exhausters

- B. Shop Drawings:
 - 1. Roof exhausters
 - 2. Cabinet fans
 - 3. Sidewall exhausters

1.05 DELIVERY STORAGE AND HANDLING

- A. Packing and Shipping:
 - 1. Maintain the manufacturers original packing and crating until the unit is on-site ready to be permanently installed.
- B. Acceptance at Site:
 - 1. Inspect the unit for damage as a result of shipping. Do not accept the unit if damaged and report the damage to the equipment manufacturer immediately.
- C. Storage and Protection:
 - 1. If the units are not going to be installed for more than two weeks from the time of delivery, store the units indoors, in the original packing and crating in an area safe from potential damaging acts to the units. The contractor shall be responsible for any and all damage to the units from the time of delivery until the project is accepted as complete by the owner.

1.06 WARRANTY

- A. Provide manufacturer's warranty for one year on all power ventilators.
- B. Warranty term shall commence from the date of beneficial use as agreed upon by the owner and contractor.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

- A. Greenheck Fan Corporation
- B. Penn Ventilator Company
- C. Carnes Company, Inc.

2.02 EQUIPMENT

- A. Centrifugal Roof Exhausters:
 - 1. Roof exhausters shall have a spun aluminum housing, backward inclined wheel, positively cooled motor, galvanized steel frame, disconnect switch, thermal overload protection, vibration isolators, wire mesh bird screen, backdraft damper and speed control.
- B. In-line Cabinet Fans:
 - 1. In-line cabinet fans shall be constructed of a corrosion resistant galvanized steel fan housing, lined with 1/2 inch sound absorbing insulation, incorporate integral backdraft damper and shall have a removable bottom housing panel that allows access to the power assembly without disturbing the duct connections.
- C. Centrifugal Sidewall Exhausters

1. Sidewall exhausters shall have a spun aluminum housing, aluminum wheel, galvanized steel frame, thermal overload protection, positively cooled motor, and vibration isolators.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. Centrifugal Roof Exhausters:
 1. Roof exhausters shall be installed on 12 inch high roof curbs one and one half (1 1/2) inches smaller than the unit curb cap. Curbs shall be set level and flashed as recommended by the roof manufacturer. Power wiring shall be run through the curb. Comply with the manufacturers installation instructions.
- B. In-line Cabinet Fans:
 1. Cabinet fans shall be supported by threaded rod, sized as recommended by the manufacturer. Support fan on threaded rods by rubber-type vibration isolators. Install double hex-nut tensioned on the threaded rod to prevent loosening.
- C. Sidewall Exhausters:
 1. Install sidewall exhausters in accordance with the manufacturers recommendations. Fastening and flashing shall be compatible with the siding construction.

3.02 FIELD QUALITY CONTROL

- A. Run-test the power ventilator and check for proper motor rotation, excessive noise or vibration and rated airflow. Repair or replace any parts found to be defective.

3.03 DEMONSTRATION

- A. Train Owner's representatives on procedures and schedules related to start-up, shutdown, troubleshooting, servicing, and preventative maintenance of the system. Schedule training with Owner's representative through the Architect.

END OF SECTION