# GENERAL

## SECTION INCLUDES

### Wall exhausters.

### Upblast centrifugal roof exhaust fans.

## REFERENCE SECTION 23 05 00 FOR THE FOLLOWING:

### References.

### Submittals.

#### Product Data: Provide data on fans and accessories including fan curves with specified operating point clearly plotted, sound power levels at rated capacity, and electrical characteristics and connection requirements.

#### Manufacturer's Installation Instructions.

### Operation and maintenance data.

## EXTRA MATERIALS

### Provide two sets of belts for each fan.

## QUALITY ASSURANCE

### Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

### AMCA Compliance: Fans shall have AMCA-Certified performance ratings and shall bear the AMCA-Certified Ratings Seal.

### UL Standards: Power ventilators shall comply with UL 705. Power ventilators for use for restaurant kitchen exhaust shall also comply with UL 762.

## COORDINATION

### Coordinate size and location of structural-steel support members.

### Coordinate sizes and locations of concrete bases with actual equipment provided.

### Coordinate sizes and locations of roof curbs, equipment supports, and roof penetrations with actual equipment provided.

# PRODUCTS

## WALL EXHAUSTERS

### Product Requirements:

#### See Drawings for further information.

## UPBLAST CENTRIFUGAL ROOF EXHAUST FANS

### Product Requirements:

#### See Drawings for further information.

# EXECUTION

## INSTALLATION

### Install in accordance with manufacturer's instructions.

### Install power ventilators level and plumb.

### Secure roof-mounted fans to roof curbs with cadmium-plated hardware.

### Install units with clearances for service and maintenance.

### Exhaust fans, and other HVAC airside equipment shall not be used for temporary building conditioning without the written permission from the Owner and Architect/Engineer.

#### If unit is approved for operation prior to substantial completion, contractor is fully responsible for all preventative maintenance. Preventative maintenance to be completed per all manufacturer recommendations. In addition, contractor is fully responsible for all cleaning of the systems to the satisfaction of the Owner and Architect/Engineer.

## CONNECTIONS

### Duct installation and connection requirements are specified in other Division 23 Sections. Drawings indicate general arrangement of ducts and duct accessories. Make final duct connections with flexible connectors. Flexible connectors are specified in Division 23 Section "Air Duct Accessories."

### Install ducts adjacent to power ventilators to allow service and maintenance.

### Ground equipment according to Division 26 sections.

## FIELD QUALITY CONTROL

### Tests and Inspections:

#### Verify that shipping, blocking, and bracing are removed.

#### Verify that unit is secure on mountings and supporting devices and that connections to ducts and electrical components are complete. Verify that proper thermal-overload protection is installed in motors, starters, and disconnect switches.

#### Verify that cleaning and adjusting are complete.

#### Disconnect fan drive from motor, verify proper motor rotation direction, and verify fan wheel free rotation and smooth bearing operation. Reconnect fan drive system, align and adjust belts, and install belt guards.

#### Adjust belt tension.

#### Adjust damper linkages for proper damper operation.

#### Verify lubrication for bearings and other moving parts.

#### Verify that manual and automatic volume control and fire and smoke dampers in connected ductwork systems are in fully open position.

#### Disable automatic temperature-control operators, energize motor and adjust fan to indicated rpm, and measure and record motor voltage and amperage.

#### Shut unit down and reconnect automatic temperature-control operators.

#### Remove and replace malfunctioning units and retest as specified above.

### Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.

### Prepare test and inspection reports.

## ADJUSTING

### Adjust damper linkages for proper damper operation.

### Adjust belt tension.

### Replace fan and motor pulleys as required to achieve design airflow.

### Lubricate bearings.

END OF SECTION 23 34 23