PART 1 - GENERAL

1.1 SUMMARY
A. Includes But Not Limited To:
   1. Furnish and install exhaust fans as described in Contract Documents.
B. Related Sections:
   1. Section 23 3001:  Common Duct Requirements.
   2. Division 26:  Control device and electrical connection.

1.2 QUALITY ASSURANCES
A. Requirements of Regulatory Agencies:  Bear AMCA seal and UL label.

PART 2 - PRODUCTS

2.1 MANUFACTURED UNITS
A. Ceiling Mounted Exhaust Fans:
   1. Acoustically insulated housings.  Sound level rating of 4.6 sones maximum for fan RPM and CFM listed on Drawings.
   2. Include chatterproof integral back-draft damper with no metal-to-metal contact.
   3. True centrifugal wheels.
   4. Entire fan, motor, and wheel assembly shall be easily removable without disturbing housing.
   5. Suitably ground motors and mount on rubber-in shear vibration isolators.
   6. Provide wall or roof cap, as required.
   7. Class One Quality Standards.  See Section 01 6000.
      a. Greenheck SP
      b. PennBarry Zephyr.
      c. Equals by Acme, Breidert, Broan, Carnes, Cook-Gemini, Greenheck, or PennBarry.

2.2 MANUFACTURERS
A. Contact Information:

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PART 3 - EXECUTION

3.1 INSTALLATION

A. Anchor fan units securely to structure or to curb.

END OF SECTION
Roof Mounted Exhaust Fans:
Direct drive or have adjustable pitch V-belt as noted on Drawings.
Wheels shall be backward curved and housing shall be removable or hinged
aluminum.
Isolate motor with vibration dampeners.
Provide quiet type back-draft dampers.
Category Four Approved Products. See Section 01 6000 for definitions of Categories.
- Acme: PV.
- Cook: ACE-B.
- Greenheck: GB.
Class One Quality Standards. See Section 01 6000.
- Acme Centri-Master
- Greenheck G, GB.
- Equals by Acme, Breidert, Carnes, Cook, Greenheck, or Jenn-Air.

Wall Mounted Exhaust Fans:
Adjustable pitch 'V' belt drive.
Non-overloading centrifugal, backward inclined wheel.
Removable covers for access to motor.
Vibration isolation for motor and drive assembly.
AMCA certified for air and sound.
Include quiet type automatic back-draft damper.
Category Four Approved Products. See Section 01 6000 for definitions of Categories.
- Acme: PWB.
- Carnes: VWBK.
- Cook: ACW-B.

Upblast Roof Exhausters (Kitchen Exhaust Fan):
Adjustable pitch 'V' belt drive.
Statically and dynamically balanced backward inclined wheel.
Vibration isolation for motor and drive assembly.
AMCA certified for air and sound.
Minimum bearing life of 200,000 hours
Motor cooling air separate from contaminated exhaust air
Category Four Approved Products. See Section 01 6000 for definitions of Categories.
- Acme: PUH.
- Carnes: VUBK.
- Cook: VCR.
- Greenheck: CUBE-HP.

In-Line Centrifugal Exhaust Fans:
AMCA certified and bear AMCA seal.
Square design constructed of heavy gauge galvanized or enamel painted steel.
Centrifugal incline blower.
V-belt drive with drive mounted outside fans.
Fan design shall be such that horsepower requirements are non-overloading over
normal range of selection.
Supplied and installed with vibration isolation sized in accordance with Manufacturer’s
recommendations.
Category Four Approved Products. See Section 01 6000 for definitions of Categories.
- Cook: SQI-B.
- Greenheck: BSQ.
Utility Type Exhaust Fans:
AMCA certified and bear AMCA seal.
Heavy gauge steel, continuously welded fan housing reinforced with rigid bracing.
Adjustable motor and bearing supports.
Quick opening type access door with latch type handles in fan scroll.
Drain plug.
Fan Wheel:
- Non-overloading, flat, backwardly inclined blades, dynamically balanced.
- Suitable for operation in moist or mildly contaminated air streams.
Grease lubricated, precision anti-friction pillow block bearings, self-aligning type.
C1040 ground and polished steel fan shaft keyed to fan wheel.
V-belt drive with belt guard.
Installed with vibration isolation as shown on Drawings.
Category Four Approved Products. See Section 01 6000 for definitions of Categories.
  - PennBarry.
  - New York Blower.
  - Trane.

Floor Mounted Utility Set:
Belt Drive.
Field rotatable housing.
Backward inclined fan wheel blades.
Adjustable motor pulley for final system balance.
Statically and dynamically balanced wheels.
Provide quiet type back draft damper.
Housing to be heavy gauge steel.
Single width single inlet type.
Category Four Approved Products. See Section 01 6000 for definitions of Categories.
  - Acme: QBR.
  - Carnes: VBBA.
  - Cook: Type CA.
  - Greenheck:

ACCESSORIES

Curbs for Roof-Mounted Exhaust Fans:
Insulated, pre-fabricated metal roof curb for roof configuration shown on Drawings.
Category Four Approved Manufacturers. See Section 01 6000 for definitions of Categories.
  - Standard Curbs:
    - Breidert.
    - Carnes.
    - Cook.
    - Greenheck.
    - Jenn-Air.
    - Utemp.
  - Sound Attenuating Curbs:
    - Acme.
    - Carnes.
    - Breidert.
    - Greenheck.
    - Jenn-Air.