

# MEPNN Supplier Scouting Opportunity Synopsis

## Section 1: General Information

Scouting Number	2025-335
Item to be Scouted	BABA Compliant HVAC In-Ceiling Fans
Days to be scouted	30
Response Due By	10/10/2025
Description	BABA Compliant: 1. ABMA 9 - Load Ratings and Fatigue Life for Ball Bearings. 2. ABMA 11 - Load Ratings and Fatigue Life for Roller Bearings.

## Section 2: Technical Information

Type of supplier being sought	2. AMCA 204 - Balance Quality and Vibration Levels for Fans. Other 3. AMCA 210 - Laboratory Methods of Testing Fans for Aerodynamic Performance BABA compliant self-certified manufacturers
Details	Rating.
Reason	4. AMCA 300 - Reverberant Room Method for Sound Testing of Fans. 5. AMCA 301 - Methods for Calculating Fan Sound Ratings from Laboratory Test Data.
Describe the manufacturing processes (elaborate to provide as much detail as possible)	Domestic components in each of the BABA-compliant manufactured products must exceed 55% of the total component cost and be assembled in the United States.
Provide dimensions / size / tolerances / performance specifications for the item	See attached specs and mechanical schedule for more information. Colorado
List required materials needed to make the product, including materials of product components	See attached specs and mechanical schedule for more information.
Are there applicable certification requirements?	Yes
Details	Build America, Buy America Act (BABAA) compliant
Are there applicable regulations?	Yes
Details	Must be able to submit BABAA manufactured product self-certification manufactured product letter that details a compliant product.
Are there any other standards, requirements, etc.?	No
Additional Technical Comments	See attached specs and mechanical schedule for more information.

## Section 4: Business Information

Estimated potential business volume	TBD post selection. Cost should be the best available, and cannot increase the project cost by 25%.
Estimated target price / unit cost information (if unavailable explain)	TBD post selection. Cost should be the best available, and cannot increase the project cost by 25%.
When is it needed by?	Q1 2026
Describe packaging requirements	Must arrive undamaged
Where will this item be shipped?	Colorado

# Additional Comments

Is there other information you would like to include?	<p>Nationwide Search</p> <p>Provide written documentation in response to the Supplier Scouting request of being a current Build America Buy America Act compliant HVAC In-Ceiling Fans manufacturer with experience in manufacturing the system components, meeting the product performance requirements.</p> <p>Information on BABAA compliance requirements can be found at the Made in America Office link <a href="https://www.madeinamerica.gov/">https://www.madeinamerica.gov/</a>.</p>
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**Division 23 - HVAC**

**SECTION 233400 - HVAC FANS**

**PART 1 - GENERAL**

**1.1 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 specifications, apply to this section, and all sections of Division 23.

**1.2 SUMMARY**

- A. Section Includes:

- 1. Centrifugal roof mounted make up air unit.
- 2. Wall mounted propeller fans.
- 3. Upblast centrifugal roof fans.
- 4. Centrifugal wall fans.
- 5. Ceiling fans.
- 6. Inline ceiling fans.
- 7. Centrifugal square inline cabinet fans.

- B. Related Sections: The following sections contain requirements that relate to this section:

- 1. Section 23 05 14 - "Common Motor Requirements": Product requirements for motors for placement by this section.
- 2. Section 23 05 48 - "Vibration and Seismic Controls for HVAC Piping and Equipment": Product requirements for resilient mountings and snubbers for fans for placement by this section.
- 3. Section 23 07 00 - "HVAC Insulation": Product requirements for power ventilators for placement by this section.
- 4. Section 23 30 00 - "HVAC Air Distribution."
- 5. Section 23 09 00 - "Instrumentation and Control for HVAC": Product requirements for control components to interface with fans.
- 6. Section 26 05 19 - "Low Voltage Electrical Power Conductors and Cables:" Requirements for electrical wiring and cable connections for units specified in this section.
- 7. Section 26 05 33 - "Raceways and Boxes for Electrical Systems:" Requirements for electrical conduits and boxes housing electrical wiring and connections specified by this section.

**1.3 REFERENCES**

(Unless otherwise noted, references apply to "latest editions.")

- A. American Bearing Manufacturers Association:

- 1. ABMA 9 - Load Ratings and Fatigue Life for Ball Bearings.
- 2. ABMA 11 - Load Ratings and Fatigue Life for Roller Bearings.

- B. Air Movement and Control Association International, Inc.:

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1. AMCA 99 - Standards Handbook.
2. AMCA 204 - Balance Quality and Vibration Levels for Fans.
3. AMCA 210 - Laboratory Methods of Testing Fans for Aerodynamic Performance Rating.
4. AMCA 300 - Reverberant Room Method for Sound Testing of Fans.
5. AMCA 301 - Methods for Calculating Fan Sound Ratings from Laboratory Test Data.

C. American Refrigeration Institute:

1. ARI 1060 - Air-to-Air Energy Recovery Ventilation Equipment Certification Equipment Program.

D. National Electrical Manufacturers Association:

1. NEMA MG 1 - Motors and Generators.
2. NEMA 250 - Enclosures for Electrical Equipment (1000 Volts Maximum).

E. Underwriters Laboratories Inc.:

1. UL 705 - Power Ventilators.

#### 1.4 SUBMITTALS

- A. General: Submit each item in this Section according to the conditions of the Contract and Division 01 specification sections.
- B. Shop Drawings: Indicate size and configuration of fan assembly, mountings, weights, ductwork and accessory connections.
- C. Product Data: Submit data on each type of fan and include accessories, fan curves with specified operating point plotted, power, RPM, sound power levels for both fan inlet and outlet at rated capacity, electrical characteristics and connection requirements.
- D. Manufacturer's Installation Instructions: Submit fan manufacturer's instructions.
- E. Manufacturer's Certificate: Certify products meet or exceed specified requirements.

#### 1.5 CLOSEOUT SUBMITTALS

- A. Provide closeout documentation in accordance with the Division 01 Specification Sections.
- B. Operation and Maintenance Data: Submit instructions for lubrication, motor and drive replacement, spare parts list, and wiring diagrams.

#### 1.6 QUALITY ASSURANCE

- A. Performance Ratings: Conform to AMCA 210 and bear AMCA Certified Rating Seal.

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- B. Sound Ratings: AMCA 301, tested to AMCA 300, and bear AMCA Certified Sound Rating Seal.
- C. UL Compliance: UL listed and labeled, designed, manufactured, and tested in accordance with UL 705.
- D. Balance Quality: Conform to AMCA 204.
- E. Perform Work in accordance with all applicable codes, standards and local authorities having jurisdiction requirements.
- F. Maintain one copy of each document on site.

**1.7 QUALIFICATIONS**

- A. Manufacturer: Company specializing in manufacturing products specified in this section with minimum three years experience and service facilities within 50 miles of the project.
- B. Installer: Company specializing in performing Work of this section with minimum three years experience.

**1.8 DELIVERY, STORAGE, AND HANDLING**

- A. Accept fans and components on site in factory protective containers, with factory shipping skids and lifting lugs, inspect for damage.
- B. Protect motors, shafts, and bearings from weather and construction dust.

**1.9 FIELD MEASUREMENTS**

- A. Verify field measurements prior to fabrication.

**1.10 WARRANTY**

- A. Furnish one year manufacturer's warranty for fans.

**1.11 MAINTENANCE SERVICE**

- A. This applies to all fans except those located in the apartments.
- B. Furnish service and maintenance of fans for five years from Date of Substantial Completion.
- C. Examine each fan's components bi-monthly. Clean, adjust, and lubricate equipment.
- D. Include systematic examination, adjustment, and lubrication of fans, and controls checkout and adjustments. Repair or replace parts in accordance with manufacturer's operating and maintenance data. Use parts produced by manufacturer of original equipment.
- E. Perform work without removing fans from service during building normal occupied hours.

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- F. Provide emergency call back service at all hours for this maintenance period.
- G. Maintain locally, near Place of the Work, adequate stock of parts for replacement or emergency purposes. Have personnel available to ensure fulfillment of this maintenance service, without unreasonable loss of time.
- H. Perform maintenance work using competent and qualified personnel under supervision of manufacturer or original installer.
- I. Do not assign or transfer maintenance service to agent or subcontractor without prior written consent of Owner.

**1.12 EXTRA MATERIALS**

- A. Furnish two sets of belts for each belt driven fan.

**PART 2 - PRODUCTS**

**2.1 WALL MOUNTED PROPELLER FANS**

- A. Belt Drive Sidewall Mounted Propeller Fan:
  - 1. Manufacturer:
    - a. Fans shall meet model numbers, types, sizes, capacities and electric characteristics as indicated on the contract drawings. Acceptable manufacturers: Greenheck, Cook, Penn Ventilator or Twin City Blower Company.
    - b. Belt Drive Sidewall Mounted Propeller Fan:
      - 1) Fan arrangement shall be either supply or exhaust, refer to contract drawings for arrangement.
      - 2) Fans shall be suitable for maximum continuous operating temperature 130 Fahrenheit (54.4 Celsius).
      - 3) Each fan shall bear a permanently affixed manufacturer's engraved metal nameplate containing the model number and individual serial number.
    - c. Wheel:
      - 1) Material type steel blades and hubs.
      - 2) Securely attached to fan shaft with standard square key and set screw or tapered bushing.
      - 3) Wheel shall be statically and dynamically balanced in accordance with AMCA Standard 204-05.
      - 4) The propeller and fan inlet shall be matched and shall have precise running tolerances for maximum performance and operating efficiency.
    - d. Motors:
      - 1) Motor enclosures shall be open drip proof.
      - 2) Motors shall be permanently lubricated, heavy duty ball bearing type to match with the fan load and furnished at the specific voltage and phase.
      - 3) Motors shall be accessible for maintenance.
    - e. Shafts and Bearings:

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- 1) Fan Shaft shall be ground and polished solid steel with an anti corrosive coating.
- 2) Bearing shall be stamped steel or cast pillow block.
- 3) Bearings shall be selected for a minimum L10 life in excess of 100,000 hours (equivalent to L50 average life of 500,000 hours), at maximum cataloged operating speed.
- 4) Bearings shall be air handling quality and shall be 100% factory tested by bearing manufacturer.
- 5) Fan Shaft first critical speed is at least 25 percent over maximum operating speed.
- f. Drive Frame:
  - 1) Drive frame assemblies shall be galvanized steel, and bolted construction.
  - 2) Drive frame shall have formed channels and fan panels shall have prepunched mounting holes, formed flanges and a deep formed one piece inlet venturi.
- a. Disconnect Switches:
  - 1) Disconnect shall be:
    - a) NEMA 1: indoor application no water: factory standard
- b. Drive Assembly:
  - 1) Belts, pulleys, and keys shall be oversized for a minimum of 150 percent of driven horsepower.
  - 2) Belts shall be Static free and oil resistant.
  - 3) Shall have fully machined cast iron pulleys, keyed and securely attached to the wheel and motor shafts.
  - 4) The motor pulley shall be adjustable for final system balancing.
  - 5) Motor shall be readily accessible for maintenance.
- c. Options/Accessories:
  - 1) Closure Angles:
    - a) Provide extra set of mounting flanges for field installation to close off the interior wall opening for a finished appearance.

**2.2 CEILING FANS**

**A. Direct Drive Premium Ceiling Mounted Centrifugal Exhaust Fans:**

1. Manufacturer:
  - a. Fans shall meet model numbers, types, sizes, capacities, and electrical characteristics as indicated on the contract drawings. Acceptable manufacturers: Greenheck, Cook, Penn Ventilator or Twin City Blower Company.
2. General:
  - a. Maximum operating temperatures shall be 130 Fahrenheit (54.4 Celsius).
  - b. Sound levels shall be as low as 0.7 AMCA sones.
  - c. Shall be UL/cUL listed for above bathtub exhaust.
  - d. Fans shall be UL/cUL listed 507 - Electric Fans.
  - e. Each fan shall bear a permanently affixed manufacturer's nameplate containing the model number and individual serial number.
3. Wheel:

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- a. Shall be forward curved centrifugal wheel.
- b. Shall be constructed of galvanized steel or calcium carbonate filled polypropylene.
- c. Shall be statically and dynamically balanced in accordance to AMCA Standard 204-05.
- 4. Motors:
  - a. Motor enclosures shall be open dripproof (ODP), opening in the frame body and or end brackets.
  - b. Motor shall be permanently lubricated sleeve bearing type to match with the fan load and furnished at the specific voltage and phase.
  - c. Motor shall be mounted on vibration isolators and be accessible for maintenance.
  - d. Shall come with thermal overload protection.
- 5. Housing:
  - a. Shall be constructed of heavy gauge galvanized steel.
  - b. Interior shall be lined with 0.5 inches of acoustical insulation.
  - c. Profile shall be as low as 10 ½ inches.
- 6. Provide Spring Loaded Aluminum Backdraft Damper:
- 7. Outlet:
  - a. Shall be field rotatable from horizontal to vertical discharge.
  - b. Duct collar shall include an aluminum backdraft damper.
- 8. Grille:
  - a. Types: Aluminum
  - b. Shall be constructed of high impact polystyrene for sizes 50 thru 390, plastic shall be factory standard on unit under 390.
  - c. Shall be constructed of aluminum non-yellowing for sizes 410 thru 1550, aluminum shall be factory standard on units over 410.
- 9. Provide External Electrical Access:
  - a. Shall eliminate removing the motor pack on installation.
- 10. Mounting Brackets:
  - a. Shall be adjustable for multiple installation conditions.
- 11. Options/Accessories:
  - a. Ceiling Radiation Damper:
    - 1) UL classified and shall be rated for three to four hours fire resistance.
    - 2) Shall be mounted directly beneath the fan.
    - 3) Shall adhere National Fire Protection Association (NFPA), Standard 90A, which requires the opening in fire rated ceiling/floors to be protected by rated CRD's.
  - b. Disconnect Switches:
    - 1) Disconnect shall be: <<select one of the following, consult rep. for exact type applicable to your project.>>:
      - a) NEMA 1: indoor application no water: factory standard
  - c. Wall Discharge:
    - 1) Type: Square/Rectangular Connection, hooded wall cap model WC.

**2.3 CENTRIFUGAL SQUARE INLINE CABINET FANS**

**A. Direct Driven Backward Inclined Inline Fans:**



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1. Manufacturer:
    - a. Fans shall meet model numbers, types, sizes, capacities, and electrical characteristics as indicated on the contract drawings. Acceptable manufacturers: Greenheck, Cook, Penn Ventilator or Twin City Blower Company.
  2. General:
    - a. Shall have a normal operating temperature of up to 130 Fahrenheit (54.4 Celsius).
    - b. Each fan shall bear a permanently affixed manufacture's engraved metal nameplate containing the model number and individual serial number.
  3. Wheel:
    - a. Shall be non-overloading, backward inclined centrifugal wheel.
    - b. Shall be constructed of aluminum.
    - c. Shall be statically and dynamically balanced in accordance to AMCA Standard 204-05.
    - d. The wheel cone and fan inlet shall be matched and shall have precise running tolerances for maximum performance and operating efficiency.
    - e. Single thickness blades shall be securely riveted or welded to a heavy gauge back plate and wheel cone.
  4. Motors:
    - a. Motor enclosures shall be Open driproof
    - b. Motors shall be permanently lubricated, sleeve bearing type on sizes 8-12 and ball bearing type on sizes 14-24 to match with the fan load and furnished at the specific voltage and phase.
    - c. Motor shall be accessible for maintenance.
  5. Housing/Cabinet Construction:
    - a. Construction material: Galvanized
    - b. Square design constructed shall be of heavy gauge galvanized steel and shall include square duct mounting collars.
    - c. Housing and bearing supports shall be constructed of heavy gauge bolted and welded steel construction to prevent vibration and to rigidly support the shaft and bearing assembly.
  6. Housing Supports and Drive Frame:
    - a. Housing supports shall be constructed of structural steel with formed flanges.
    - b. Drive frame shall be welded steel which supports the motor.
  7. Disconnect Switches:
    - 1) NEMA 1: indoor application no water: factory standard
  8. Duct Collars:
    - a. Shall be of square design to provide a large discharge area.
  9. Access Panel:
    - a. Provide two sided access panels, to allow access to all internal components.
    - b. Locate perpendicular to the motor mounting panel.
- B. Belt Drive Duct Inline Centrifugal Fans:**
1. Manufacturer:
    - a. Fans shall meet model numbers, types, sizes, capacities, and electrical characteristics as indicated on the contract drawings. Acceptable

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manufacturers: Greenheck, Cook, Penn Ventilator or Twin City Blower Company.

2. General:
  - a. Fans shall have a maximum continuous operating temperature of 130 Fahrenheit (54.4 Celsius).
  - b. Each fan shall bear a permanently affixed manufacture's engraved metal nameplate containing the model number and individual serial number.
3. Wheel:
  - a. Shall be forward curved centrifugal wheel.
  - b. Shall be constructed of galvanized steel.
  - c. Shall be statically and dynamically balanced in accordance with AMCA Standard 204-05.
4. Motors:
  - a. Motor enclosures: Open dripproof
  - b. Motors shall be permanently lubricated, heavy duty ball bearing type to match with the fan load and furnished at the specific voltage and phase.
  - c. Motor shall be mounted on vibration isolators, out of the airstream.
  - d. For motor cooling there shall be fresh air drawn into the motor compartment through an area free of discharge contaminants.
  - e. Motor shall be accessible for maintenance.
5. Shafts and Bearings:
  - a. Fan shaft shall be ground and polished solid steel with an anti corrosive coating.
  - b. Shall be permanently sealed bearings or pillow block ball bearings.
  - c. Bearings shall be selected for a minimum L10 life in excess of 100,000 hours (equivalent to L50 average life of 500,000 hours), at maximum cataloged operating speed.
  - d. Bearings shall be 100 percent factory tested.
  - e. Fan Shaft first critical speed shall be at least 25 percent over maximum operating speed.
6. Housing:
  - a. Shall be constructed of heavy gauge galvanized steel.
  - b. Shall be of rectangular design construction and shall include rectangular duct mounting collars.
  - c. Shall include prepunched mounting brackets.
7. Housing Supports and Drive Frame:
  - a. Drive frame assemblies shall be constructed of heavy gauge steel and mounted on vibration isolators.
  - b. Shall be designed with belt adjustment to eliminate scroll damage.
8. Duct Collars:
  - a. Shall be provided for duct connections for outlet and inlet collars.
9. Drive Assembly:
  - a. Belts, pulleys, and keys shall be oversized for a minimum of 150 percent of driven horsepower.
  - b. Belts shall be static free and oil resistant.
  - c. Pulleys shall be: Cast type, keyed, and securely attached to wheel and motor shafts.
  - d. Motor pulleys shall be adjustable for final system balancing.
  - e. Readily accessible for maintenance.
10. Access Panel:
  - a. Provide removable access panel for access to all internal components.

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- 11. Mounting Brackets:
  - a. Provide fully adjustable mounting brackets for multiple installation conditions.
- 12. Options/Accessories:
  - a. Disconnect Switches:
    - a) NEMA 1: indoor application no water: factory standard

**PART 3 - EXECUTION**

**3.1 EXAMINATION**

- A. Verify roof curbs are installed and dimensions are as shown on the shop drawings and instructed by the fan manufacturer.

**3.2 PREPARATION**

- A. Coordinate roof curb installation with the Division 07 specifications.
- B. Ensure that roof openings are square and/or round and accurately aligned, correctly located, and in tolerance.
- C. Ensure that ducts are plumb, sized correctly, and to proper elevation above roof decks.

**3.3 INSTALLATION**

- A. Secure roof, and wall fans and gravity ventilators with cadmium plated steel lag screws to roof curb.
- B. Suspended Cabinet Fans: Install flexible connections between fan and ductwork. Ensure metal bands of connectors are parallel with minimum one inch (25 mm) flex between ductwork and fan while running.
- C. Provide backdraft dampers on outlet from cabinet and ceiling fans and as indicated on Drawings.
- D. Install safety screen where inlet or outlet is exposed.
- E. Pipe scroll drains to nearest floor drain.
- F. Install backdraft dampers on the discharges of exhaust fans when they are not integral with fans and as indicated on the Contract Drawings.
- G. Provide adjustable sheaves as required for final air balance.
- H. Install Work in accordance with all applicable codes, standards, and local authorities having jurisdiction requirements.
- I. Install fans in accordance with the fan manufacturer's instructions and as indicated on the contract drawings.