SECTION 23 34 00

HVAC VENTILATION FANS AND EQUIPMENT

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\*\* NOTE TO SPECIFIER \*\* Fantech; ventilation products, HVAC fans.  
This section is based on the products of Fantech, which is located at:  
10048 Industrial Blvd.  
Lenexa, KS 66215   
Toll Free Tel: 800-747-1762   
Fax: 800-487-9915   
Email: [request info (info@fantech-us.com)](http://admin.arcat.com/users.pl?action=UserEmail&company=Fantech&coid=32425&rep=&fax=800-487-9915)  
Web: <http://www.fantech.net>   
 [ [Click Here](http://www.arcat.com/arcatcos/cos32/arc32425.html) ] for additional information.  
For more than 3 decades, Fantech has been researching, designing and bringing to market "Ventilation Solutions" that ensure better indoor air quality in the buildings where we work and live.  
 - Inline fans for bathroom exhaust, dryer duct exhaust (DEDPV-705) and radon mitigation.  
 - A full line of indoor air quality equipment such as Heat Recovery and Energy Recovery Ventilators and Whole House HEPA Filtration.  
 - Larger CFM fans for commercial applications such as Inline Centrifugal Fans for Round, Square and Rectangular Duct, Exterior Mounted Centrifugal Fans for Wall and Roof, Multi-Port Centrifugal Fans and Air Curtains.  
Since its founding in 1981, Fantech has focused on becoming a leader in the air movement/ventilation industry. Fantech's strength and stability comes from its alliance with its parent company, Systemair, Sweden. Systemair's global network of 58 subsidiaries on four continents makes the Systemair Group one of the largest air movement companies in the world.  
We develop ventilation systems for today and tomorrow. Fantech products are energy-smart and simple to understand, install, use and maintain. When we develop new products, we are inspired by our vision to become your best friend in HVAC and ensure that our products meet current code requirements. We have more than 230 development engineers and they all have one thing in common - the ability to respond quickly to our customers' need for new, up-to-date products.

1. GENERAL
   1. SECTION INCLUDES

\*\* NOTE TO SPECIFIER \*\* Delete items below not required for project.

* + 1. Heat recovery ventilators. (HERO Series) (HERO 120H) (HERO 150H (HERO 200H) (HERO 150H-EC (HERO 250H-EC)
    2. Vertical heat recovery ventilators. (VHR 70) (VHR 70R ES) (Flex 100H ES) (150R) (200R)
    3. Horizontal heat recovery ventilators. (SH 704) (SHR 150R) (SHR 200R) (SHR 260RD)
    4. Vertical energy recovery ventilators. (VER 100) (VER 150) (VER 200)
    5. Horizontal energy recovery ventilators. (SE 704N) (SER150) (SER 200) (SER 260D)
    6. Low profile energy recovery ventilators. (FIT 120E)
    7. HEPA filtration devices. (CM3000) (CM3000 I) (DM3000 P)
    8. Dryer exhaust duct power ventilators. (DEDPV-705)
    9. Makeup air systems. (MUAS 750) (MUAS 1200) (MUAS 1600) (MUAS 2000)
    10. Centrifugal inline fans. (FG 4XL EC) (FG 6M EC) (FG 8M EC) (FG 10M EC) (FG 12XL EC)
    11. Inline duct fans. (PrioAir 6EC) (PrioAir 8EC) (PrioAir 10EC)
    12. Exterior centrifugal fans. (RVF 6XL EC) (RVF 8XL EC) (RVF 10 EC)
    13. Wall control units. (Eco-Touch) (EDF 1) (EDF 7) (EDF 1R) (RTS 5) (FTD7)
  1. RELATED SECTIONS

\*\* NOTE TO SPECIFIER \*\* Delete any sections below not relevant to this project; add others as required.

* + 1. Section 23 80 00 - Decentralized HVAC Equipment.
    2. Section 23 80 00 - Decentralized HVAC Equipment.
    3. Section 23 70 00 - Central HVAC Equipment.
    4. Section 23 72 00 - Air-to-Air Energy Recovery Equipment.
    5. Section 23 30 00 - HVAC Air Distribution.
    6. Section 23 31 00 - HVAC Ducts and Casings.
    7. Section 23 31 13 - Metal Ducts.
    8. Section 23 33 00 - Air Duct Accessories.
    9. Section 23 34 33 - Air Curtains.
    10. Section 23 41 43 - Ultra-Low Penetration Filtration.
    11. Section 23 09 00 - Instrumentation and Control for HVAC.
    12. Section 23 09 13 - Instrumentation and Control Devices for HVAC.
    13. Section 23 09 33 - Electric and Electronic Control System for HVAC.
    14. Section 25 51 00 - Integrated Automation Control of Facility Equipment.
    15. Section 23 08 00 - Commissioning of HVAC.
  1. REFERENCES

\*\* NOTE TO SPECIFIER \*\* Delete references from the list below that are not actually required by the text of the edited section.

* + 1. Air Movement and Control Association International, Inc. (AMCA)
    2. CSA Group (CSA): Canadian Electrical Code.
       1. CSA C22.2 no. 113 - Fans And Ventilators.
       2. CSA F326 - Residential Mechanical Ventilation Systems.
       3. CSA C439 - Laboratory Methods Of Test For Rating The Performance of Heat/Energy-Recovery Ventilators.
    3. Home Ventilating Institute (HVI).
    4. Environmental Protection Agency (EPA): Energy Star program.
    5. International Electrotechnical Commission (IEC): Ingress Protection Code.
    6. National Electrical Manufacturers Association (NEMA).
    7. Underwriters Laboratories (UL):
       1. UL 705 - Standard for Safety for Power Ventilators.
       2. UL 1812 - Standard for Ducted Heat Recovery Ventilators.
  1. SUBMITTALS
     1. Submit under provisions of Section 01 30 00 - Administrative Requirements.
     2. Product Data:
        1. Manufacturer's data sheets on each product to be used.
        2. Preparation instructions and recommendations.
        3. Storage and handling requirements and recommendations.
        4. Typical installation methods.
  2. QUALITY ASSURANCE
     1. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with a minimum five years documented experience.
     2. Installer Qualifications: Company specializing in performing Work of this section with minimum two years documented experience with projects of similar scope and complexity.
     3. Source Limitations: Provide each type of product from a single manufacturing source to ensure uniformity.
     4. \*\* PRE-INSTALLATION CONFERENCE
     5. Convene a conference approximately two weeks before scheduled commencement of the Work. Attendees shall include Architect, Contractor and trades involved. Agenda shall include schedule, responsibilities, critical path items and approvals.
  3. DELIVERY, STORAGE, AND HANDLING
     1. Store and handle in strict compliance with manufacturer's written instructions and recommendations.
     2. Protect from damage due to weather, excessive temperature, and construction operations.
  4. PROJECT CONDITIONS
     1. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's recommended limits.
  5. WARRANTY
     1. Manufacturer's Warranty: Provide manufacturer's standard limited warranty against defects in materials and workmanship.

\*\* NOTE TO SPECIFIER \*\* The following options apply to HERO Series only. Delete if not required.

* + - 1. Counterflow Exchanger: Limited lifetime warranty.
      2. Motors: 7 year warranty.
      3. Parts: 5 year warranty.

1. PRODUCTS
   1. MANUFACTURERS
      1. Acceptable Manufacturer: Fantech, which is located at: 10048 Industrial Blvd.; Lenexa, KS 66215 ; Toll Free Tel: 800-747-1762 ; Fax: 800-487-9915 ; Email: [request info (info@fantech-us.com)](http://admin.arcat.com/users.pl?action=UserEmail&company=Fantech&coid=32425&rep=&fax=800-487-9915); Web: <http://www.fantech.net>

\*\* NOTE TO SPECIFIER \*\* Delete one of the following two paragraphs; coordinate with requirements of Division 1 section on product options and substitutions.

* + 1. Substitutions: Not permitted.
    2. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00 - Product Requirements.

\*\* NOTE TO SPECIFIER \*\* While natural infiltration of fresh air thru gaps and cracks in the building envelope offers a certain amount of fresh air, with most new homes this amount of air just is not sufficient. Properly sealed homes require mechanical ventilation to remove excess moisture, odors, and contaminants while providing fresh air for occupants and enhancing comfort. HERO Series fresh air appliance provides a controlled way of ventilating a home. It works continuously to supply filtered air into the building while removing the equal amount of moist, stale air. Heat in the extract air is recovered by the heat exchanger and used to heat the fresh air coming from outside. In summer, the energy of extract air transfers to cool the warmer fresh air reducing cooling loads on air conditioning. The EC fans operate at high efficiency levels and offer a great energy-saving potential not only at full load, but especially at part-load. When operating at part-load, the energy used is much lower than with an AC motor of equivalent output. Hero Series is compatible with ECO-TOUCH Programmable Wall Control. Delete Article heat recovery ventilators if not required.

* 1. HEAT RECOVERY VENTILATORS

\*\* NOTE TO SPECIFIER \*\* Delete paragraph for HERO Model 120H if not required.

* + 1. Heat Recovery Ventilators: HERO 120H Fresh Air Appliances as manufactured by Fantech.
       1. Compliance: HVI certified, Energy Star qualified.
          1. UL 1812 requirements for construction, installation of heat recovery ventilators.
          2. CSA C22.2 no. 113 for ventilators.
          3. CSA F326 requirements for installation of heat recovery ventilators.
          4. Technical data obtained from published results of test relating to CSA C439.
       2. Operation: Multiple speed operation.
       3. Installation: Vertical placement.
       4. Plastic Collar Shrouds: With integrated backdraft prevention.
       5. Electrical Box: Factory installed 120V cord; with external low voltage access, connect ports, integrated in-door manometer ports and duct ports.
       6. Case: 24 gauge galvanized pre-painted steel corrosion resistant.
       7. Cabinet Insulation: 3/4 inch (20 mm) high density expanded polystyrene.
       8. Duct Connections: Top-mounted, diameter of 5 inches (127 mm), rubberized seals.
       9. Fans: Two PSC backward inclined external rotor motors.
       10. Heat Recovery Core: Counterflow heat recovery exchanger, thermoformed polymer plates; removable through access panel.
       11. Defrost:
           1. Internal recirculation defrost does not depressurize interior during defrost cycle.
           2. Preset defrost sequence activated when outdoor temperature falls below 23 degrees F (minus 5 degrees C); automatically adjusts based on operating conditions.
           3. Fan speed is also adjusted automatically between ventilation and defrost mode.
       12. Filters: 2 washable electrostatic panel type air filters supplied with each unit.
       13. Serviceability: Access panel for core, filters, fans and electronic panel.

\*\* NOTE TO SPECIFIER \*\* Delete options for mounting if not required.

* + - 1. Mounting: Standard, wall mount system.
      2. Mounting: Ceiling chain mounted.
      3. Mounting: As indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Sizing your HERO unit with filters may affect the airflow. Please consider added static pressure when determining desired airflow. Filter type will vary in static pressure. Delete options for filtration sidekicks not required.

* + - 1. Filtration Option: MERV8.
      2. Filtration Option: MERV13.
      3. Filtration Option: As indicated on Drawings.
      4. Average Airflow (at 0.4 inch wg.): 119 cfm (56 L/s).
      5. Voltage: 120 V.
      6. Phase: Single.
      7. Duct Connection Size: 5 inches (127 mm).
      8. Rated Power: 165 W.
      9. Max Sensible Recovery Efficiency: 80.
      10. Max Current: 1.2 A.
      11. Defrost Cycle: Recirculation.
      12. Height: 24-1/4 (616 mm))
      13. Depth: 11-1/2 (292 mm)
      14. Width: 23-1/4 (591 mm).
      15. Shipping Weight: 47 lb (21.3 kg).
      16. Accessories:

\*\* NOTE TO SPECIFIER \*\* Delete options for accessories not required.

* + - * 1. COM5P Supply and Exhaust Hoods (40223).
        2. ECO-TOUCH Programmable Wall Control (44929).
        3. MGE 5 Metal Exhaust Grill (411370).
        4. MGS 5 Metal Supply Grill (411369).

\*\* NOTE TO SPECIFIER \*\* Delete paragraph for HERO Model 150H if not required.

* + 1. Heat Recovery Ventilators: HERO 150H Fresh Air Appliances as manufactured by Fantech.
       1. Compliance: HVI certified, Energy Star qualified.
          1. UL 1812 requirements for construction, installation of heat recovery ventilators.
          2. CSA C22.2 no. 113 for ventilators.
          3. CSA F326 requirements for installation of heat recovery ventilators.
          4. Technical data obtained from published results of test relating to CSA C439.
       2. Operation: Multiple speed operation.
       3. Installation: Vertical placement.
       4. Plastic Collar Shrouds: With integrated backdraft prevention.
       5. Electrical Box: Factory Installed 120V cord; with external low voltage access, connect ports, integrated in-door manometer ports and duct ports.
       6. Case: 24 gauge galvanized pre-painted steel corrosion resistant.
       7. Cabinet Insulation: 3/4 inch (20 mm) high density expanded polystyrene.
       8. Duct Connections: Top-mounted, diameter of 6 inches (152 mm), rubberized seals.
       9. Fans: Two PSC backward inclined external rotor motors.
       10. Heat Recovery Core: Counterflow heat recovery exchanger, thermoformed polymer plates; removable through access panel.
       11. Defrost:
           1. Internal recirculation defrost does not depressurize interior during defrost cycle.
           2. Preset defrost sequence activated when outdoor temperature falls below 23 degrees F (minus 5 degrees C); automatically adjusts based on operating conditions.
           3. Fan speed is also adjusted automatically between ventilation and defrost mode.
       12. Filters: 2 washable electrostatic panel type air filters supplied with each unit.
       13. Serviceability: Access panel for core, filters, fans and electronic panel.

\*\* NOTE TO SPECIFIER \*\* Delete options for mounting if not required.

* + - 1. Mounting: Standard, wall mount system.
      2. Mounting: Ceiling chain mounted.
      3. Mounting: As indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Sizing your HERO unit with filters may affect the airflow. Please consider added static pressure when determining desired airflow. Filter type will vary in static pressure. Delete options for filtration sidekicks not required.

* + - 1. Filtration Option: MERV8.
      2. Filtration Option: MERV13.
      3. Filtration Option: HEPA.
      4. Filtration Option: As indicated on Drawings.
      5. Average Airflow (at 0.4 inch wg.): 161 cfm (76 L/s).
      6. Voltage: 120 V.
      7. Phase: Single.
      8. Duct Connection Size: 6 inches (152 mm).
      9. Rated Power: 180 W.
      10. Max Sensible Recovery Efficiency: 80.
      11. Max Current: 1.4 A.
      12. Defrost Cycle: Recirculation.
      13. Height: 24-7/8 (632 mm))
      14. Depth: 13-3/8 (340 mm)
      15. Width: 27-7/8 (708 mm).
      16. Shipping Weight: 59 lb (26.6 kg).
      17. Accessories:

\*\* NOTE TO SPECIFIER \*\* Delete options for accessories not required.

* + - * 1. COM6P Supply and Exhaust Hoods (40222).
        2. ECO-TOUCH Programmable Wall Control (44929).
        3. MATRIX 6 inch, 2 in 1 Vent Hood (413640).
        4. MGE 6 Metal Exhaust Grill (411371).
        5. MGS 6 Metal Supply Grill (411242).

\*\* NOTE TO SPECIFIER \*\* Delete paragraph for HERO Model 200H if not required.

* + 1. Heat Recovery Ventilators: HERO 200H Fresh Air Appliances as manufactured by Fantech.
       1. Compliance: HVI certified, Energy Star qualified.
          1. UL 1812 requirements for construction, installation of heat recovery ventilators.
          2. CSA C22.2 no. 113 for ventilators.
          3. CSA F326 requirements for installation of heat recovery ventilators.
          4. Technical data obtained from published results of test relating to CSA C439.
       2. Operation: Multiple speed operation.
       3. Installation: Vertical placement.
       4. Plastic Collar Shrouds: With integrated backdraft prevention.
       5. Electrical Box: Factory installed 120V cord; with external low voltage access, connect ports, integrated in-door manometer ports and duct ports.
       6. Case: 24 gauge galvanized pre-painted steel corrosion resistant.
       7. Cabinet Insulation: 3/4 inch (20 mm) high density expanded polystyrene.
       8. Duct Connections: Top-mounted, diameter of 6 inches (152 mm), rubberized seals.
       9. Fans: Two PSC backward inclined external rotor motors.
       10. Heat Recovery Core: Counterflow heat recovery exchanger, thermoformed polymer plates; removable through access panel.
       11. Defrost:
           1. Internal recirculation defrost does not depressurize interior during defrost cycle.
           2. Preset defrost sequence activated when outdoor temperature falls below 23 degrees F (minus 5 degrees C); automatically adjusts based on operating conditions.
           3. Fan speed is also adjusted automatically between ventilation and defrost mode.
       12. Filters: 2 washable electrostatic panel type air filters supplied with each unit.
       13. Serviceability: Access panel for core, filters, fans and electronic panel.

\*\* NOTE TO SPECIFIER \*\* Delete options for mounting if not required.

* + - 1. Mounting: Standard, wall mount system.
      2. Mounting: Ceiling chain mounted.
      3. Mounting: As indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Sizing your HERO unit with filters may affect the airflow. Please consider added static pressure when determining desired airflow. Filter type will vary in static pressure. Delete options for filtration sidekicks not required.

* + - 1. Filtration Option: MERV8.
      2. Filtration Option: MERV13.
      3. Filtration Option: HEPA.
      4. Filtration Option: As indicated on Drawings.
      5. Average Airflow (at 0.4 inch wg.): 218 cfm (103 L/s).
      6. Voltage: 120 V.
      7. Phase: Single.
      8. Duct Connection Size: 6 inches (152 mm).
      9. Rated Power: 210 W.
      10. Max Sensible Recovery Efficiency: 80.
      11. Max Current: 2.0 A.
      12. Defrost Cycle: Recirculation.
      13. Height: 24-7/8 (632 mm))
      14. Depth: 15-3/8 (391 mm)
      15. Width: 27-7/8 (708 mm).
      16. Shipping Weight: 64 lb (28.8 kg).
      17. Accessories:

\*\* NOTE TO SPECIFIER \*\* Delete options for accessories not required.

* + - * 1. COM6P Supply and Exhaust Hoods (40222).
        2. ECO-TOUCH Programmable Wall Control (44929).
        3. MATRIX 6 inch, 2 in 1 Vent Hood (413640).
        4. MGE 6 Metal Exhaust Grill (411371).
        5. MGS 6 Metal Supply Grill (411242).

\*\* NOTE TO SPECIFIER \*\* Delete paragraph for HERO Model 150H-EC if not required.

* + 1. Heat Recovery Ventilators: HERO 150H-EC Fresh Air Appliances as manufactured by Fantech.
       1. Compliance: HVI certified, Energy Star qualified.
          1. UL 1812 requirements for construction, installation of heat recovery ventilators.
          2. CSA C22.2 no. 113 for ventilators.
          3. CSA F326 requirements for installation of heat recovery ventilators.
          4. Technical data obtained from published results of test relating to CSA C439.
       2. Operation: Multiple speed operation.
       3. Installation: Vertical placement.
       4. Plastic Collar Shrouds: With integrated backdraft prevention.
       5. Electrical Box: Factory installed 120V cord; with external low voltage access, connect ports, integrated in-door manometer ports and duct ports.
       6. Case: 24 gauge galvanized pre-painted steel corrosion resistant.
       7. Cabinet Insulation: 3/4 inch (20 mm) high density expanded polystyrene.
       8. Duct Connections: Top-mounted, diameter of 6 inches (152 mm), rubberized seals.
       9. Fans: Two ECM electronically commutated motors.
       10. Heat Recovery Core: Counterflow heat recovery exchanger, thermoformed polymer plates; removable through access panel.
       11. Defrost:
           1. Internal recirculation defrost does not depressurize interior during defrost cycle.
           2. Preset defrost sequence activated when outdoor temperature falls below 23 degrees F (minus 5 degrees C); automatically adjusts based on operating conditions.
           3. Fan speed is also adjusted automatically between ventilation and defrost mode.
       12. Filters: 2 washable electrostatic panel type air filters supplied with each unit.
       13. Serviceability: Access panel for core, filters, fans and electronic panel.

\*\* NOTE TO SPECIFIER \*\* Delete options for mounting if not required.

* + - 1. Mounting: Standard, wall mount system.
      2. Mounting: Ceiling chain mounted.
      3. Mounting: As indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Sizing your HERO unit with filters may affect the airflow. Please consider added static pressure when determining desired airflow. Filter type will vary in static pressure. Delete options for filtration sidekicks not required.

* + - 1. Filtration Option: MERV8.
      2. Filtration Option: MERV13.
      3. Filtration Option: HEPA.
      4. Filtration Option: As indicated on Drawings.
      5. Average Airflow (at 0.4 inch wg.): 176 cfm (93 L/s).
      6. Voltage: 120 V.
      7. Phase: Single.
      8. Duct Connection Size: 6 inches (152 mm).
      9. Rated Power: 110 W.
      10. Max Sensible Recovery Efficiency: 82.
      11. Max Current: 3.0 A.
      12. Defrost Cycle: Recirculation.
      13. Height: 24-7/8 (632 mm))
      14. Depth: 13-3/8 (340 mm)
      15. Width: 27-7/8 (708 mm).
      16. Shipping Weight: 58 lb (26.5 kg).
      17. Accessories:

\*\* NOTE TO SPECIFIER \*\* Delete options for accessories not required.

* + - * 1. COM6P Supply and Exhaust Hoods (40222).
        2. ECO-TOUCH Programmable Wall Control (44929).
        3. MGE 6 Metal Exhaust Grill (411371).
        4. MGS 6 Metal Supply Grill (411242).

\*\* NOTE TO SPECIFIER \*\* Delete paragraph for HERO Model 250H-EC if not required.

* + 1. Heat Recovery Ventilators: HERO 250H-EC Fresh Air Appliances as manufactured by Fantech.
       1. Compliance: HVI certified, Energy Star qualified.
          1. UL 1812 requirements for construction, installation of heat recovery ventilators.
          2. CSA C22.2 no. 113 for ventilators.
          3. CSA F326 requirements for installation of heat recovery ventilators.
          4. Technical data obtained from published results of test relating to CSA C439.
       2. Operation: Multiple speed operation.
       3. Installation: Vertical placement.
       4. Plastic Collar Shrouds: With integrated backdraft prevention.
       5. Electrical Box: Factory installed 120V cord; with external low voltage access, connect ports, integrated in-door manometer ports and duct ports.
       6. Case: 24 gauge galvanized pre-painted steel corrosion resistant.
       7. Cabinet Insulation: 3/4 inch (20 mm) high density expanded polystyrene.
       8. Duct Connections: Top-mounted, diameter of 6 inches (152 mm), rubberized seals.
       9. Fans: Two ECM electronically commutated motors.
       10. Heat Recovery Core: Counterflow heat recovery exchanger, thermoformed polymer plates; removable through access panel.
       11. Defrost:
           1. Internal recirculation defrost does not depressurize interior during defrost cycle.
           2. Preset defrost sequence activated when outdoor temperature falls below 23 degrees F (minus 5 degrees C); automatically adjusts based on operating conditions.
           3. Fan speed is also adjusted automatically between ventilation and defrost mode.
       12. Filters: 2 washable electrostatic panel type air filters supplied with each unit.
       13. Serviceability: Access panel for core, filters, fans and electronic panel.

\*\* NOTE TO SPECIFIER \*\* Delete options for mounting if not required.

* + - 1. Mounting: Standard, wall mount system.
      2. Mounting: Ceiling chain mounted.
      3. Mounting: As indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Sizing your HERO unit with filters may affect the airflow. Please consider added static pressure when determining desired airflow. Filter type will vary in static pressure. Delete options for filtration sidekicks not required.

* + - 1. Filtration Option: MERV8.
      2. Filtration Option: MERV13.
      3. Filtration Option: HEPA.
      4. Filtration Option: As indicated on Drawings.
      5. Average Airflow (at 0.4 inch wg.): 263 cfm (124 L/s).
      6. Voltage: 120 V.
      7. Phase: Single.
      8. Duct Connection Size: 6 inches (152 mm).
      9. Rated Power: 230 W.
      10. Max Sensible Recovery Efficiency: 82.
      11. Max Current: 6.4 A.
      12. Defrost Cycle: Recirculation.
      13. Height: 24-17/8 (632 mm))
      14. Depth: 15-3/8 (391 mm)
      15. Width: 27-7/8 (708 mm).
      16. Shipping Weight: 62 lb (28.2 kg).
      17. Accessories:

\*\* NOTE TO SPECIFIER \*\* Delete options for accessories not required.

* + - * 1. COM6P Supply and Exhaust Hoods (40222).
        2. ECO-TOUCH Programmable Wall Control (44929).
        3. MGE 6 Metal Exhaust Grill (411371).
        4. MGS 6 Metal Supply Grill (411242).

\*\* NOTE TO SPECIFIER \*\* Delete Article for vertical heat recovery ventilators if not required.

* 1. VERTICAL HEAT RECOVERY VENTILATORS

\*\* NOTE TO SPECIFIER \*\* Delete paragraph for Model VHR 70 if not required.

* + 1. Vertical Heat Recovery Ventilators: Model VHR 70 Residential HRVs as manufactured by Fantech.
       1. Compliance: UL / CSA listed, labeled.
       2. Number of Bedrooms: 1 to 2.
       3. Airflow Range (at 0.4 inch P): 23 cfm to 58 cfm (11 L/s to 27 L/s).
       4. Duct Connection: 4 inches (102 mm).
       5. Voltage: 120 V.
       6. Phase: Single.
       7. Connection Type: Round.
       8. Consumed Power (Low / High Speed): 36 W / 50 W.
       9. Max Sensible Recovery Efficiency: 61 percent.
       10. Max Current: 0.4 A.
       11. Defrost Cycle: Fan shutdown.
       12. Height: 17-3/16 inches (434 mm).
       13. Width: 22-1/2 inches (571 mm).
       14. Depth: 10-3/16 inches (259 mm).
       15. Weight: 26 lb (11.8 kg).

\*\* NOTE TO SPECIFIER \*\* Delete paragraph for Model VHR 70R ES if not required.

* + 1. Vertical Heat Recovery Ventilators: Model VHR 70R ES Residential HRVs as manufactured by Fantech.
       1. Compliance: UL / CSA listed, labeled.
       2. Number of Bedrooms: 1 to 2.
       3. Airflow Range (at 0.4 inch P): 33 cfm to 70 cfm (16 L/s to 33 L/s).
       4. Duct Connection: 5 inches (127 mm).
       5. Voltage: 120 V.
       6. Phase: Single.
       7. Connection Type: Oval.
       8. Consumed Power (Low / High Speed): 35 W / 60 W.
       9. Max Sensible Recovery Efficiency: 65 percent.
       10. Max Current: 1.1 A.
       11. Defrost Cycle: Recirculation.
       12. Height: 17-3/16 inches (434 mm).
       13. Width: 22-1/2 inches (571 mm).
       14. Depth: 10-3/16 inches (259 mm).
       15. Weight: 30 lb (13.6 kg).

\*\* NOTE TO SPECIFIER \*\* Delete paragraph for Model Flex 100H ES if not required.

* + 1. Vertical Heat Recovery Ventilators: Model Flex 100H ES Residential HRVs as manufactured by Fantech.
       1. Compliance: UL / CSA listed, labeled.
       2. Number of Bedrooms: 1 to 5.
       3. Airflow Range (at 0.4 inch P): 45 cfm to 104 cfm (21 L/s to 49 L/s).
       4. Duct Connection: 5 inches (127 mm).
       5. Voltage: 120 V.
       6. Phase: Single.
       7. Connection Type: Oval.
       8. Consumed Power (Low / High Speed): 50 W / 100 W.
       9. Max Sensible Recovery Efficiency: 65 percent.
       10. Max Current: 1.4 A.
       11. Defrost Cycle: Recirculation.
       12. Height: 17-7/8 inches (454 mm).
       13. Width: 22-1/2 inches (571 mm).
       14. Depth: 15 inches (381 mm).
       15. Weight: 39 lb (17.7 kg).

\*\* NOTE TO SPECIFIER \*\* Delete paragraph for Model VHR 150R if not required.

* + 1. Vertical Heat Recovery Ventilators: Model 150R Residential HRVs as manufactured by Fantech.
       1. Compliance: UL / CSA listed, labeled.
       2. Number of Bedrooms: 2 to 5.
       3. Airflow Range (at 0.4 inch P): 63 cfm to 157 cfm (30 L/s to 74 L/s).
       4. Duct Connection: 6 inches (152 mm).
       5. Voltage: 120 V.
       6. Phase: Single.
       7. Connection Type: Oval.
       8. Consumed Power (Low / High Speed): 70 W / 156 W.
       9. Max Sensible Recovery Efficiency: 66 percent.
       10. Max Current: 1.2 A.
       11. Defrost Cycle: Recirculation.
       12. Height: 18-3/8 inches (467 mm).
       13. Width: 23-3/4 inches (603 mm).
       14. Depth: 17-3/16 inches (434 mm).
       15. Weight: 44 lb (20 kg).

\*\* NOTE TO SPECIFIER \*\* Delete paragraph for Model VHR 200R if not required.

* + 1. Vertical Heat Recovery Ventilators: Model 200R Residential HRVs as manufactured by Fantech.
       1. Compliance: UL / CSA listed, labeled.
       2. Number of Bedrooms: 3 to 7.
       3. Airflow Range (at 0.4 inch P): 52 cfm to 173 cfm (25 L/s to 82 L/s).
       4. Duct Connection: 6 inches (152 mm).
       5. Voltage: 120 V.
       6. Phase: Single.
       7. Connection Type: Oval.
       8. Consumed Power (Low / High Speed): 70 W / 156 W.
       9. Max Sensible Recovery Efficiency: 70 percent.
       10. Max Current: 1.4 A.
       11. Defrost Cycle: Recirculation.
       12. Height: 22-11/16 inches (576 mm).
       13. Width: 28 inches (711 mm).
       14. Depth: 17 inches (432 mm).
       15. Weight: 66 lb (29.9 kg).

\*\* NOTE TO SPECIFIER \*\* Delete Article for horizontal heat recovery ventilators if not required.

* 1. HORIZONTAL HEAT RECOVERY VENTILATORS

\*\* NOTE TO SPECIFIER \*\* Delete paragraph for Model SH 704 if not required.

* + 1. Horizontal Heat Recovery Ventilators: Model SH 704 as manufactured by Fantech.
       1. Compliance: UL / CSA listed, labeled.
       2. Number of Bedrooms: 1 to 2.
       3. Airflow Range (at 0.4 inch P): 23 cfm to 52 cfm (11 L/s to 25 L/s).
       4. Duct Connection: 4 inches (102 mm).
       5. Voltage: 120 V.
       6. Phase: Single.
       7. Connection Type: Round.
       8. Consumed Power (Low / High Speed): 36 W / 40 W.
       9. Max Sensible Recovery Efficiency: 57 percent.
       10. Max Current: 0.4 A.
       11. Defrost Cycle: Fan shutdown.
       12. Height: 17-1/4 inches (438 mm).
       13. Width: 19-3/4 inches (502 mm).
       14. Depth: 10-3/16 inches (259 mm).
       15. Weight: 25 lb (11.3 kg).

\*\* NOTE TO SPECIFIER \*\* Delete paragraph for Model SHR 150R if not required.

* + 1. Horizontal Heat Recovery Ventilators: Model SHR 150R as manufactured by Fantech.
       1. Compliance: UL / CSA listed, labeled.
       2. Number of Bedrooms: 2 to 5.
       3. Airflow Range (at 0.4 inch P): 63 cfm to 159 cfm (28 L/s to 75 L/s).
       4. Duct Connection: 6 inches (152 mm).
       5. Voltage: 120 V.
       6. Phase: Single.
       7. Connection Type: Round.
       8. Consumed Power (Low / High Speed): 70 W / 156 W.
       9. Max Sensible Recovery Efficiency: 66 percent.
       10. Max Current: 1.4 A.
       11. Defrost Cycle: Recirculation.
       12. Height: 16-1/4 inches (413 mm).
       13. Width: 28 inches (711 mm).
       14. Depth: 17-1/4 inches (438 mm).
       15. Weight: 49 lb (22.2 kg).

\*\* NOTE TO SPECIFIER \*\* Delete paragraph for Model SHR 200R if not required.

* + 1. Horizontal Heat Recovery Ventilators: Model SHR 200R as manufactured by Fantech.
       1. Compliance: UL / CSA listed, labeled.
       2. Number of Bedrooms: 3 to 7.
       3. Airflow Range (at 0.4 inch P): 31 cfm to 195 cfm (15 L/s to 92 L/s).
       4. Duct Connection: 6 inches (152 mm).
       5. Voltage: 120 V.
       6. Phase: Single.
       7. Connection Type: Round.
       8. Consumed Power (Low / High Speed): 82 W / 225 W.
       9. Max Sensible Recovery Efficiency: 65 percent.
       10. Max Current: 2.3 A.
       11. Defrost Cycle: Recirculation.
       12. Height: 20-1/2 inches (521 mm).
       13. Width: 32-1/4 inches (819 mm).
       14. Depth: 17-1/4 inches (438 mm).
       15. Weight: 62 lb (28.1 kg).

\*\* NOTE TO SPECIFIER \*\* Delete paragraph for Model SHR 260RD if not required.

* + 1. Horizontal Heat Recovery Ventilators: Model SHR 260RD as manufactured by Fantech.
       1. Compliance: UL / CSA listed, labeled.
       2. Number of Bedrooms: 3 to 7.
       3. Airflow Range (at 0.4 inch P): 120 cfm to 267 cfm (57 L/s to 126 L/s).
       4. Duct Connection: 8 inches (203 mm).
       5. Voltage: 120 V.
       6. Phase: Single.
       7. Connection Type: Round.
       8. Consumed Power (Low / High Speed): 136 W / 272 W.
       9. Max Sensible Recovery Efficiency: 66 percent.
       10. Max Current: 2.5 A.
       11. Defrost Cycle: Recirculation.
       12. Height: 22-3/4 inches (578 mm).
       13. Width: 32-7/8 inches (835 mm).
       14. Depth: 25-1/8 inches (638 mm).
       15. Weight: 80 lb (36.3 kg).

\*\* NOTE TO SPECIFIER \*\* Delete Article for vertical energy recovery ventilators if not required.

* 1. VERTICAL ENERGY RECOVERY VENTILATORS

\*\* NOTE TO SPECIFIER \*\* Delete paragraph for Model VER 100 if not required.

* + 1. Vertical Energy Recovery Ventilators: Model VER 100 as manufactured by Fantech.
       1. Compliance: UL / CSA listed, labeled.
       2. Number of Bedrooms: 1 to 5.
       3. Airflow Range (at 0.4 inch P): 36 cfm to 124 cfm (17 L/s to 59 L/s).
       4. Duct Connection: 5 inches (127 mm).
       5. Voltage: 120 V.
       6. Phase: Single.
       7. Connection Type: Oval.
       8. Consumed Power (Low / High Speed): 50 W / 130 W.
       9. Max Sensible Recovery Efficiency: 63 percent.
       10. Max Current: 1.4 A.
       11. Defrost Cycle: Fan shutdown.
       12. Height: 17-7/8 inches (454 mm).
       13. Width: 22-1/2 inches (571 mm).
       14. Depth: 15 inches (381 mm).
       15. Weight: 32 lb (14.5 kg).

\*\* NOTE TO SPECIFIER \*\* Delete paragraph for Model VER 150 if not required.

* + 1. Vertical Energy Recovery Ventilators: Model VER 150 as manufactured by Fantech.
       1. Compliance: UL / CSA listed, labeled.
       2. Number of Bedrooms: 2 to 5.
       3. Airflow Range (at 0.4 inch P): 64 cfm to 147 cfm (30 L/s to 69 L/s).
       4. Duct Connection: 6 inches (152 mm).
       5. Voltage: 120 V.
       6. Phase: Single.
       7. Connection Type: Oval.
       8. Consumed Power (Low / High Speed): 88 W / 171 W.
       9. Max Sensible Recovery Efficiency: 62 percent.
       10. Max Current: 1.2 A.
       11. Defrost Cycle: Fan shutdown.
       12. Height: 18-3/8 inches (467 mm).
       13. Width: 23-3/4 inches (603 mm).
       14. Depth: 17-3/16 inches (437 mm).
       15. Weight: 42 lb (19.1 kg).

\*\* NOTE TO SPECIFIER \*\* Delete paragraph for Model VER 200 if not required.

* + 1. Vertical Energy Recovery Ventilators: Model VER 200 as manufactured by Fantech.
       1. Compliance: UL / CSA listed, labeled.
       2. Number of Bedrooms: 3 to 7.
       3. Airflow Range (at 0.4 inch P): 47 cfm to 170 cfm (22 L/s to 80 L/s).
       4. Duct Connection: 6 inches (152 mm).
       5. Voltage: 120 V.
       6. Phase: Single.
       7. Connection Type: Oval.
       8. Consumed Power (Low / High Speed): 68 W / 180 W.
       9. Max Sensible Recovery Efficiency: 75 percent.
       10. Max Current: 1.2 A.
       11. Defrost Cycle: Fan shutdown.
       12. Height: 22-11/16 inches (576 mm).
       13. Width: 28 inches (711 mm).
       14. Depth: 17 inches (432 mm).
       15. Weight: 53 lb (24 kg).

\*\* NOTE TO SPECIFIER \*\* Delete Article for horizontal energy recovery ventilators if not required.

* 1. HORIZONTAL ENERGY RECOVERY VENTILATORS

\*\* NOTE TO SPECIFIER \*\* Delete paragraph for Model SE 704N if not required.

* + 1. Horizontal Energy Recovery Ventilators: Model SE 704N as manufactured by Fantech.
       1. Compliance: UL / CSA listed, labeled.
       2. Number of Bedrooms: 2 to 5.
       3. Airflow Range (at 0.4 inch P): 22 cfm to 56 cfm (10 L/s to 26 L/s).
       4. Duct Connection: 4 inches (102 mm).
       5. Voltage: 120 V.
       6. Phase: Single.
       7. Connection Type: Round.
       8. Consumed Power (Low / High Speed): 39 W / 43 W.
       9. Max Sensible Recovery Efficiency: 62 percent.
       10. Max Current: 1.4 A.
       11. Defrost Cycle: Fan shutdown.
       12. Height: 17-1/4 inches (438 mm).
       13. Width: 19-3/4 inches (502 mm).
       14. Depth: 10-3/16 inches (259 mm).
       15. Weight: 25 lb (11.3 kg).

\*\* NOTE TO SPECIFIER \*\* Delete paragraph for Model SER 150 if not required.

* + 1. Horizontal Energy Recovery Ventilators: Model SER 150 as manufactured by Fantech.
       1. Compliance: UL / CSA listed, labeled.
       2. Number of Bedrooms: 2 to 5.
       3. Airflow Range (at 0.4 inch P): 65 cfm to 148 cfm (31 L/s to 70 L/s).
       4. Duct Connection: 6 inches (152 mm).
       5. Voltage: 120 V.
       6. Phase: Single.
       7. Connection Type: Round.
       8. Consumed Power (Low / High Speed): 88 W / 171 W.
       9. Max Sensible Recovery Efficiency: 62 percent.
       10. Max Current: 1.2 A.
       11. Defrost Cycle: Fan shutdown.
       12. Height: 16-1/4 inches (413 mm).
       13. Width: 28 inches (711 mm).
       14. Depth: 17-1/4 inches (438 mm).
       15. Weight: 46 lb (20.9 kg).

\*\* NOTE TO SPECIFIER \*\* Delete paragraph for Model SER 200 if not required.

* + 1. Horizontal Energy Recovery Ventilators: Model SER 200 as manufactured by Fantech.
       1. Compliance: UL / CSA listed, labeled.
       2. Number of Bedrooms: 3 to 7.
       3. Airflow Range (at 0.4 inch P): 80 cfm to 185 cfm (38 L/s to 87 L/s).
       4. Duct Connection: 6 inches (152 mm).
       5. Voltage: 120 V.
       6. Phase: Single.
       7. Connection Type: Round.
       8. Consumed Power (Low / High Speed): 146 W / 253 W.
       9. Max Sensible Recovery Efficiency: 74 percent.
       10. Max Current: 2.3 A.
       11. Defrost Cycle: Fan shutdown.
       12. Height: 22-1/4 inches (578 mm).
       13. Width: 32-3/4 inches (832 mm).
       14. Depth: 17-3/8 inches (441 mm).
       15. Weight: 51 lb (23.1 kg).

\*\* NOTE TO SPECIFIER \*\* Delete paragraph for Model SER 260D if not required.

* + 1. Horizontal Energy Recovery Ventilators: Model SER 260D as manufactured by Fantech.
       1. Compliance: UL / CSA listed, labeled.
       2. Number of Bedrooms: 3 to 7.
       3. Airflow Range (at 0.4 inch P): 95 cfm to 238 cfm (45 L/s to 112 L/s).
       4. Duct Connection: 6 inches (152 mm).
       5. Voltage: 120 V.
       6. Phase: Single.
       7. Connection Type: Round.
       8. Consumed Power (Low / High Speed): 182 W / 311 W.
       9. Max Sensible Recovery Efficiency: 76 percent.
       10. Max Current: 2.5 A.
       11. Defrost Cycle: Fan shutdown.
       12. Height: 22-1/2 inches (571 mm).
       13. Width: 55-1/4 inches (1403 mm).
       14. Depth: 17-3/8 inches (441 mm).
       15. Weight: 80 lb (36.3 kg).

\*\* NOTE TO SPECIFIER \*\* Delete Article for low profile energy recovery ventilators if not required.

* 1. LOW PROFILE ENERGY RECOVERY VENTILATORS
     1. Low Profile Energy Recovery Ventilators: Model FIT 120E as manufactured by Fantech.
        1. Compliance: UL / CSA listed, labeled.
        2. Number of Bedrooms: 3 to 7.
        3. Airflow Range (at 0.4 inch P): 66 cfm to 106 cfm (31 L/s to 50 L/s).
        4. Duct Connection: 5 inches (127 mm).
        5. Voltage: 120 V.
        6. Phase: Single.
        7. Connection Type: Oval.
        8. Consumed Power (Low / High Speed): 82 W / 148 W.
        9. Max Sensible Recovery Efficiency: 65 percent.
        10. Max Current: 1.4 A.
        11. Defrost Cycle: Fan shutdown.
        12. Height: 8-3/4 inches (222 mm).
        13. Width: 34-1/2 inches (876 mm).
        14. Depth: 19-3/4 inches (502 mm).
        15. Weight: 36 lb (19.1 kg).

\*\* NOTE TO SPECIFIER \*\* Fantech provides an added solution for better indoor air quality with the Whole House HEPA filtration unit. This small, compact unit installs on the existing ductwork of your furnace/air handler or can be used as an independent system mounted in the attic, crawl space or closet. It is designed to clean and filter the total volume of air in an average 2,200 sq. ft. home once an hour. Larger homes will take slightly longer for complete air change. Mold spores, pet dander, cooking odors, dusts, dust mites and their by-products are all captured in a series of three filters. The prefilter collects the largest particles while the carbon filter absorbs odors. The third filter is a true, certified HEPA filter which collects particles down to 0.3 microns. Delete Article for HEPA filtration units if not required.

* 1. HEPA FILTRATION UNITS
     1. HEPA Filtration Units: Whole House HEPA as manufactured by Fantech.
        1. Compliance: UL / CSA listed, labeled.

\*\* NOTE TO SPECIFIER \*\* Delete options for models not required.

* + - 1. Model: CM3000.
         1. Mounting: Ceiling chain mounted.
         2. Each unit comes with two 8inch (203 mm) duct collars.
         3. Each unit comes with hanging chains.
      2. Model: CM3000 I.
         1. Mounting: Ceiling chain mounted.
         2. Insulated outer shell, for unconditioned spaces.
         3. Each unit comes with hanging chains.
      3. Model: DM3000P.
         1. Mounting: Duct mounted.
         2. Integrated airflow sensor switch which energizes the unit any time furnace/air handler operates.
         3. Designed with a backplate that allows direct connection of the unit to air handler or furnace.
      4. Model: As indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* DEDPV 705 is a dryer exhaust duct power ventilator. It helps your dryer run efficiently while removing the warm and moist air from the dryer duct. Performance certified by HVI; safety certified by UL to the DEDPV supplement to UL705. The fan should be added in the dryer duct run when the length of the run exceeds 40 feet with no bends, 35 feet with one bend or 30 feet with two bends. The fan can be used to effectively maintain dryer exhaust in duct runs up to 130 linear feet. The DEDPV 705 features a pressure switch that automatically activates the exhaust fan once the dryer is on; the temperature limit switch to turn the fan off in case of a fire, the wall-mounted indicator panel with a 50 ft cable that indicates proper operation of the exhaust fan. In the event of a problem, the LED light will inform the homeowner of the nature of the problem. Some helpful tips to take into account while installing the dryer exhaust fan DEDPV 705: Avoid using rigid PVC pipes or flexible ducts. Use only steel or aluminum ducts rated for dryer use. If you are running your dryer duct through an unconditioned space, make sure you wrap it in insulation. Delete Article for dryer exhaust duct power ventilators if not required.

* 1. DRYER EXHAUST DUCT POWER VENTILATORS
     1. Dryer Exhaust Duct Power Ventilators: Model DEDPV-705 as manufactured by Fantech.
        1. Certificate: HVI certified, UL to the DEDPV supplement to UL705, UL to CSA C22.2 No. 113.
        2. Each unit includes four mounting clamps and two cleanouts.
        3. Voltage: 120 V nominal.
        4. Frequency: 60 Hz.
        5. Phase: Single.
        6. Input Power: 72 W.
        7. Input Current: 0.75 A.
        8. Impeller Speed: 2,559 rpm.
        9. Air Flow Maximum: 173.0 cfm (82 L/s).
        10. Temperature of Transported Air: Maximum 167 degrees F (75 degrees C).
        11. Enclosure Class, Motor: IP44.
        12. Insulation Class: B.
        13. Duct dimension; Circular, Inlet: 4 inches (102 mm).
        14. Duct dimension; Circular, Outlet: 4 inches (102 mm).
        15. Weight: 13.3 lb (6 kg).
        16. Duct Connection Type: Circular.
        17. Accessories:

\*\* NOTE TO SPECIFIER \*\* If DEDPV-705 is mounted within 5' of dryer install a secondary lint trap DBLT 4W. It filters the air, catches the lint and protects the fan and ductwork. Delete options for accessories not required.

* + - * 1. Model: DBLT4W Secondary Lint Trap.
        2. Model: HS 4W External Louver Exhaust.

\*\* NOTE TO SPECIFIER \*\* Select the Makeup Air System with capacity to compensate for the maximum air flow rate of the exhaust system being served. The MUAS includes all system component items except a heater (optional accessory), wiring, duct work, insulation and electrical disconnect. The Fantech Makeup Air System (MUAS) is a "powered" or "fan-forced" system, which is triggered when the compensated exhaust system is energized: the motorized shut-off damper opens and the MUAS fan is powered on. The MUAS fan is automatically speed-controlled relative to the speed of the compensated exhaust system fan's speed. In other words, as the exhaust fan's speed is increased and decreased the MUAS fan's speed is automatically controlled so that the makeup air flow compensates the exhaust air flow rate proportionally. Since it is fan-forced, makeup air can be ducted to where it can be most suitably delivered to the home. Delete Article for makeup air systems if not required.

* 1. MAKEUP AIR SYSTEMS

\*\* NOTE TO SPECIFIER \*\* Delete paragraph for MUAS 750 if not required.

* + 1. Makeup Air Systems: MUAS 750 as manufactured by Fantech.
       1. Compliance: International Residential Code (IRC) for kitchen makeup air requirements.
       2. Operation: Systems equipped with means of closure and shall be automatically controlled to start and operate simultaneously with exhaust system.
          1. FMAC controller provides automatic operation of system; includes current transducer, system controller, transformer, and NEMA electrical enclosure.
          2. Automatically compensates an exhaust system with fan-powered, proportionally varying makeup air.
          3. Exhaust hood systems shall be provided with makeup air at a rate approximately equal to the exhaust air rate.
          4. Particulate matter is filtered from air before it is delivered indoors.
       3. Maximum Airflow Rate (at 0.2 inch wg): 750 cfm (354 L/s).
       4. Inlet Duct: Circular, 8 inches (203 mm).
       5. Outlet Duct: Circular, 8 inches (203 mm).
       6. Weight: 121 lb (55 kg).
       7. FMAC Makeup Air Control: FMAC.
       8. Metal Wall Intake Hood: FML 8.
       9. Motorized Shut-off Damper: ADC 8.
       10. Filter Cabinet with Pleated Filter: FGR 8HV.
       11. Fan with ECM-motor: PrioAir 8 EC.
       12. Duct Silencer: LD 8.
       13. Mounting Clamps (in pairs): FC 8.

\*\* NOTE TO SPECIFIER \*\* Cold outdoor air can be tempered with optional MUAH heater kits. Your climate zone might necessitate a heater for the delivery of makeup air into the building. Delete optional makeup air heater if not required.

* + - 1. Makeup Air Heaters: MUAH 8 / 6 as manufactured by Fantech.
         1. Operation: Heater automatically varies modulating heat output to deliver air at temperature set point, even as air flow rate and outdoor air temperature vary.
         2. Maximum Allowable Airflow Rate: 750 cfm (354 L/s).
         3. Maximum Heat Output: 6 kW / 20 BTUh.
         4. Heater Duct Connection Diameter: 8 inches (203 mm).
         5. Electric Heaters: SDHR 8-6K.
         6. Mounting Clamps (in pairs): FC 8.
         7. Shipping Weight: 70 lb (32 kg).

\*\* NOTE TO SPECIFIER \*\* Delete paragraph for MUAS 1200 if not required.

* + 1. Makeup Air Systems: MUAS 1200 as manufactured by Fantech.
       1. Compliance: International Residential Code (IRC) for kitchen makeup air requirements.
       2. Operation: Systems equipped with means of closure and shall be automatically controlled to start and operate simultaneously with exhaust system.
          1. FMAC controller provides automatic operation of system; includes current transducer, system controller, transformer, and NEMA electrical enclosure.
          2. Automatically compensates an exhaust system with fan-powered, proportionally varying makeup air.
          3. Exhaust hood systems shall be provided with makeup air at a rate approximately equal to the exhaust air rate.
          4. Particulate matter is filtered from air before it is delivered indoors.
       3. Maximum Airflow Rate (at 0.2 inch wg): 1156 cfm (546 L/s).
       4. Inlet Duct: Circular, 10 inches (254 mm).
       5. Outlet Duct: Circular, 10 inches (254 mm).
       6. Weight: 132 lb (60 kg).
       7. FMAC Makeup Air Control: FMAC.
       8. Metal Wall Intake Hood: FML 10.
       9. Motorized Shut-off Damper: ADC 10.
       10. Filter Cabinet with Pleated Filter: FGR 10HV.
       11. Fan with ECM-motor: PrioAir 10 EC.
       12. Duct Silencer: LD 10.
       13. Mounting Clamps (in pairs): FC 10.

\*\* NOTE TO SPECIFIER \*\* Cold outdoor air can be tempered with optional MUAH heater kits. Your climate zone might necessitate a heater for the delivery of makeup air into the building. Delete optional makeup air heater if not required.

* + - 1. Makeup Air Heaters: MUAH 10 / 10 as manufactured by Fantech.
         1. Operation: Heater automatically varies modulating heat output to deliver air at temperature set point, even as air flow rate and outdoor air temperature vary.
         2. Maximum Allowable Airflow Rate: 1200 cfm (3566 L/s).
         3. Maximum Heat Output: 10 kW / 34140 BTUh.
         4. Heater Duct Connection Diameter: 10 inches (2054 mm).
         5. Electric Heaters: SDHR 10-10K.
         6. Mounting Clamps (in pairs): FC 10.
         7. Shipping Weight: 75 lb (34 kg).

\*\* NOTE TO SPECIFIER \*\* Delete paragraph for MUAS 1600 if not required.

* + 1. Makeup Air Systems: MUAS 1600 as manufactured by Fantech.
       1. Compliance: International Residential Code (IRC) for kitchen makeup air requirements.
       2. Operation: Systems equipped with means of closure and shall be automatically controlled to start and operate simultaneously with exhaust system.
          1. FMAC controller provides automatic operation of system; includes current transducer, system controller, transformer, and NEMA electrical enclosure.
          2. Automatically compensates an exhaust system with fan-powered, proportionally varying makeup air.
          3. Exhaust hood systems shall be provided with makeup air at a rate approximately equal to the exhaust air rate.
          4. Particulate matter is filtered from air before it is delivered indoors.
       3. Maximum Airflow Rate (at 0.5 inch wg): 1600 cfm (755 L/s).
       4. Inlet Duct: Circular, 12 inches (305 mm).
       5. Outlet Duct: Circular, 12 inches (305 mm).
       6. Shipping Weight: 179 lb (81 kg).
       7. FMAC Makeup Air Control: FMAC.
       8. Metal Wall Intake Hood: FML 12.
       9. Motorized Shut-off Damper: ADC 12.
       10. Filter Cabinet with Pleated Filter: FGR 12HV.
       11. Fan with ECM-motor: FKD 12XL EC.
       12. Duct Silencer: LD 12.
       13. Mounting Clamps (in pairs): FC 12, FC-12-315.

\*\* NOTE TO SPECIFIER \*\* Cold outdoor air can be tempered with optional MUAH heater kits. Your climate zone might necessitate a heater for the delivery of makeup air into the building. Delete optional makeup air heater if not required.

* + - 1. Makeup Air Heaters: MUAH 12 / 10 as manufactured by Fantech.
         1. Operation: Heater automatically varies modulating heat output to deliver air at temperature set point, even as air flow rate and outdoor air temperature vary.
         2. Maximum Allowable Airflow Rate: 1600 cfm (755 L/s).
         3. Maximum Heat Output: 10 kW / 34140 BTUh.
         4. Heater Duct Connection Diameter: 12 inches (304 mm).
         5. Electric Heaters: SDHR 12-10K.
         6. Mounting Clamps (in pairs): FC 12.
         7. Shipping Weight: 75 lb (34 kg).

\*\* NOTE TO SPECIFIER \*\* Delete paragraph for MUAS 2000 if not required.

* + 1. Makeup Air Systems: MUAS 2000 as manufactured by Fantech.
       1. Compliance: International Residential Code (IRC) for kitchen makeup air requirements.
       2. Operation: Systems equipped with means of closure and shall be automatically controlled to start and operate simultaneously with exhaust system.
          1. FMAC controller provides automatic operation of system; includes current transducer, system controller, transformer, and NEMA electrical enclosure.
          2. Automatically compensates an exhaust system with fan-powered, proportionally varying makeup air.
          3. Exhaust hood systems shall be provided with makeup air at a rate approximately equal to the exhaust air rate.
          4. Particulate matter is filtered from air before it is delivered indoors.
       3. Maximum Airflow Rate (at 0.5 inch wg): 2000 cfm (944 L/s).
       4. Inlet Duct: Circular, 14 inches (356 mm).
       5. Outlet Duct: Circular, 14 inches (356 mm).
       6. Shipping Weight: 202 lb (92 kg).
       7. FMAC Makeup Air Control: FMAC.
       8. Metal Wall Intake Hood: FML 14.
       9. Motorized Shut-off Damper: ADC 14.
       10. Filter Cabinet with Pleated Filter: FGR 14HV.
       11. Fan with ECM-motor: FKD 14XL EC.
       12. Duct Silencer: LD 14.
       13. Mounting Clamps (in pairs): FC 14.

\*\* NOTE TO SPECIFIER \*\* Cold outdoor air can be tempered with optional MUAH heater kits. Your climate zone might necessitate a heater for the delivery of makeup air into the building. Delete optional makeup air heater if not required.

* + - 1. Makeup Air Heaters: MUAH 12 / 20 as manufactured by Fantech.
         1. Operation: Heater automatically varies modulating heat output to deliver air at temperature set point, even as air flow rate and outdoor air temperature vary.
         2. Maximum Allowable Airflow Rate: 2000 cfm (944 L/s).
         3. Maximum Heat Output: 20 kW / 68280 BTUh.
         4. Heater Duct Connection Diameter: 12 inches (305 mm).
         5. Electric Heaters: SDHR 12-20K.
         6. Mounting Clamps (in pairs): FC 12.
         7. Shipping Weight: 75 lb (34 kg).

\*\* NOTE TO SPECIFIER \*\* Control features allow the FG EC to be integrated into and play an active role in smart HVAC systems in buildings. These fans are known for their economical use of energy and ease of control. The fan can be mounted at any angle in any point along the duct work and straight-through air flow design allows easy installation. By using FC type mounting clamps, fan can be easily removed from duct work for service. Fans are constructed in accordance with standard dimensions for spiral duct eliminating the need for transition pieces. They can be varied in speed to match an application's demand and operate at high efficiency levels. For the same air volume, they consume considerably less energy than an AC fan. 0-10Vdc signal from device or Building Management System (BMS) can be used to externally control fan motor. Delete Article for centrifugal inline fans if not required.

* 1. CENTRIFUGAL INLINE FANS

\*\* NOTE TO SPECIFIER \*\* Delete paragraph for Model FG 4XL EC if not required.

* + 1. Centrifugal Inline Fans: Model FG 4XL EC as manufactured by Fantech.
       1. Application: Designed for installation in ducts.
       2. Certificates: cULus.
       3. Performance: Fan air flow performance shall be based upon tests conducted in accordance with AMCA Standard 211 and shall be licensed to bear the AMCA Certified Ratings Label.
       4. Housing:
          1. Galvanized sheet metal with seams folded to give fan an airtight casing.
          2. Externally mounted electrical terminal box, pre-wired terminal strip connections.
       5. Motors: ECM motors with integrated motor protection.
          1. Motorized Impeller: External rotor type, class B insulation, enclosed with permanent split capacitor; acceptable for continuous duty.
          2. Protection: Equipped with automatic reset thermal overload protection.
          3. Motor Bearings: Permanently sealed, self-lubricating ball type.
          4. Fan Wheel: Backward inclined centrifugal type with an inlet venturi.
          5. Fan Wheel Materials: Molded high impact polypropylene.
          6. Vibration Control: Statically and dynamically balanced as one integral unit.
       6. Speed Control:
          1. Pre-wired Speed Control Potentiometer for air flow adjustments and balancing.
          2. External Speed Control: 0-10Vdc signal.
          3. Motor provides reference that can be used by remote mounted potentiometer.
          4. Motor provides operational speed (tachometer pulse) output that can be used to verify fan operation.
       7. Connection Collar: Minimum 1 inch (25 mm) long.
       8. Motor Type: ECM.
       9. Voltage: 120 V nominal.
       10. Frequency: 60 Hz.
       11. Phase: Single.
       12. Input Power: 33 W.
       13. Input Current 0.48 A.
       14. Impeller Speed: 4038 rpm.
       15. Air Flow: Maximum 180.0 cfm (85 L/s).
       16. Temperature of Transported Air: Maximum 140 degrees F (60 degrees C).
       17. Enclosure Class, Motor: IP54.
       18. Insulation: Class B.
       19. Inlet Duct: Circular, 4 inches (102 mm).
       20. Outlet Duct: Circular, 4 inches (102 mm).
       21. Weight: 4.6 lb (2.1 kg).
       22. Accessories:

\*\* NOTE TO SPECIFIER \*\* Delete options for accessories not required.

* + - * 1. FC 4 Mounting Clamps (2 pcs) (411295).
        2. HS 4W External Louver Exhaust (45151).
        3. IG 4 Inlet Guard (411301).
        4. LD 4 Silencer (411282).
        5. MGE 4 Metal Exhaust Grill (411106).
        6. MGS 4 Metal Supply Grill (411368).
        7. MTP 10, 10K, Speed control (32731).
        8. RSK 4 Backdraft Damper (411112).

\*\* NOTE TO SPECIFIER \*\* Delete paragraph for Model FG 6M EC if not required.

* + 1. Centrifugal Inline Fans: Model FG 6M EC as manufactured by Fantech.
       1. Application: Designed for installation in ducts.
       2. Compliance: AMCA Air, HVI certified, cULus listed, Energy Star qualified.
       3. Performance: Fan air flow performance shall be based upon tests conducted in accordance with AMCA Standard 211 and shall be licensed to bear the AMCA Certified Ratings Label.
       4. Housing:
          1. Galvanized sheet metal with seams folded to give fan an airtight casing.
          2. Externally mounted electrical terminal box, pre-wired terminal strip connections.
       5. Motors: ECM motors with integrated motor protection.
          1. Motorized Impeller: External rotor type, class B insulation, enclosed with permanent split capacitor; acceptable for continuous duty.
          2. Protection: Equipped with automatic reset thermal overload protection.
          3. Motor Bearings: Permanently sealed, self-lubricating ball type.
          4. Fan Wheel: Backward inclined centrifugal type with an inlet venturi.
          5. Fan Wheel Materials: Molded high impact polypropylene.
          6. Vibration Control: Statically and dynamically balanced as one integral unit.
       6. Speed Control:
          1. Pre-wired Speed Control Potentiometer for air flow adjustments and balancing.
          2. External Speed Control: 0-10Vdc signal.
          3. Motor provides reference that can be used by remote mounted potentiometer.
          4. Motor provides operational speed (tachometer pulse) output that can be used to verify fan operation.
       7. Connection Collar: Minimum 1 inch (25 mm) long.
       8. Voltage: 120 V nominal.
       9. Frequency: 60 Hz.
       10. Phase: Single.
       11. Input Power: 74 W.
       12. Input Current: 1.0 A.
       13. Impeller Speed: 2491 rpm.
       14. Air Flow: Maximum 364.0 cfm (172 L/s).
       15. Temperature of Transported Air: Maximum 140 degrees F (60 degrees C).
       16. Enclosure Class, Motor: IP44.
       17. Insulation: Class B.
       18. Inlet Duct: Circular, 6 inches (152 mm).
       19. Outlet Duct: Circular, 6 inches (152 mm).
       20. Weight: 9 lb (4.1 kg).
       21. Accessories:

\*\* NOTE TO SPECIFIER \*\* Delete options for accessories not required.

* + - * 1. ADC 6 Shut-off Damper with Motor (44967).
        2. FC 6 Mounting Clamps (2 pcs) (411120).
        3. HS 6W External Louver Exhaust (45153).
        4. IG 6 Inlet Guard (411109).
        5. LD 6 Silencer (411284).
        6. MGE 6 Metal Exhaust Grill (411371).
        7. MGS 6 Metal Supply Grill (411242).
        8. RSK 6 Backdraft Damper (411114).

\*\* NOTE TO SPECIFIER \*\* Delete paragraph for Model FG 8M EC if not required.

* + 1. Centrifugal Inline Fans: Model FG 8M EC as manufactured by Fantech.
       1. Application: Designed for installation in ducts.
       2. Compliance: AMCA Air, HVI certified, cULus listed, Energy Star qualified.
       3. Performance: Fan air flow performance shall be based upon tests conducted in accordance with AMCA Standard 211 and shall be licensed to bear the AMCA Certified Ratings Label.
       4. Housing:
          1. Galvanized sheet metal with seams folded to give fan an airtight casing.
          2. Externally mounted electrical terminal box, pre-wired terminal strip connections.
       5. Motors: ECM motors with integrated motor protection.
          1. Motorized Impeller: External rotor type, class B insulation, enclosed with permanent split capacitor; acceptable for continuous duty.
          2. Protection: Equipped with automatic reset thermal overload protection.
          3. Motor Bearings: Permanently sealed, self-lubricating ball type.
          4. Fan Wheel: Backward inclined centrifugal type with an inlet venturi.
          5. Fan Wheel Materials: Molded high impact polypropylene.
          6. Vibration Control: Statically and dynamically balanced as one integral unit.
       6. Speed Control:
          1. Pre-wired Speed Control Potentiometer for air flow adjustments and balancing.
          2. External Speed Control: 0-10Vdc signal.
          3. Motor provides reference that can be used by remote mounted potentiometer.
          4. Motor provides operational speed (tachometer pulse) output that can be used to verify fan operation.
       7. Connection Collar: Minimum 1 inch (25 mm) long.
       8. Voltage: 120 V nominal.
       9. Frequency: 60 Hz.
       10. Phase: Single.
       11. Input Power: 71 W.
       12. Input Current: 0.501 A.
       13. Impeller Speed: 2515 rpm.
       14. Air Flow: Maximum 428.0 cfm (202 L/s).
       15. Temperature of Transported Air: Maximum 140 degrees F (60 degrees C).
       16. Enclosure Class, Motor: IP44.
       17. Insulation: Class B.
       18. Inlet Duct: Circular, 8 inches (205 mm).
       19. Outlet Duct: Circular, 8 inches (205 mm).
       20. Weight: 8.4 lb (3.8 kg).
       21. Accessories:

\*\* NOTE TO SPECIFIER \*\* Delete options for accessories not required.

* + - * 1. ADC 8 Shut-off Damper with Motor (44690).
        2. FC 8 Mounting Clamps (2 pcs) (411121).
        3. FML 8 Metal Hood Supply Air (45148).
        4. IG 8 Inlet Guard (411127).
        5. LD 8 Silencer (411125).
        6. RSK 8 Backdraft Damper (411115).

\*\* NOTE TO SPECIFIER \*\* Delete paragraph for Model FG 10M EC if not required.

* + 1. Centrifugal Inline Fans: Model FG 10M EC as manufactured by Fantech.
       1. Application: Designed for installation in ducts.
       2. Compliance: AMCA Air, HVI certified, cULus listed, Energy Star qualified.
       3. Performance: Fan air flow performance shall be based upon tests conducted in accordance with AMCA Standard 211 and shall be licensed to bear the AMCA Certified Ratings Label.
       4. Housing:
          1. Galvanized sheet metal with seams folded to give fan an airtight casing.
          2. Externally mounted electrical terminal box, pre-wired terminal strip connections.
       5. Motors: ECM motors with integrated motor protection.
          1. Motorized Impeller: External rotor type, class B insulation, enclosed with permanent split capacitor; acceptable for continuous duty.
          2. Protection: Equipped with automatic reset thermal overload protection.
          3. Motor Bearings: Permanently sealed, self-lubricating ball type.
          4. Fan Wheel: Backward inclined centrifugal type with an inlet venturi.
          5. Fan Wheel Materials: Molded high impact polypropylene.
          6. Vibration Control: Statically and dynamically balanced as one integral unit.
       6. Speed Control:
          1. Pre-wired Speed Control Potentiometer for air flow adjustments and balancing.
          2. External Speed Control: 0-10Vdc signal.
          3. Motor provides reference that can be used by remote mounted potentiometer.
          4. Motor provides operational speed (tachometer pulse) output that can be used to verify fan operation.
       7. Connection Collar: Minimum 1 inch (25 mm) long.
       8. Voltage: 120 V nominal.
       9. Frequency: 60 Hz.
       10. Phase: Single.
       11. Input Power: 93 W.
       12. Input Current: 0.65 A.
       13. Impeller Speed: 2311 rpm.
       14. Air Flow: Maximum 511.0 cfm (241 L/s).
       15. Temperature of Transported Air: Maximum 140 degrees F (60 degrees C).
       16. Enclosure Class, Motor: IP44.
       17. Insulation: Class B.
       18. Inlet Duct: Circular, 10 inches (254 mm).
       19. Outlet Duct: Circular, 10 inches (254 mm).
       20. Weight: 9.2 lb (4.2 kg).
       21. Accessories:

\*\* NOTE TO SPECIFIER \*\* Delete options for accessories not required.

* + - * 1. ADC 10 Shut-off Damper with Motor (44691).
        2. FC 10 Mounting Clamps (2 pcs) (411122).
        3. FGR 10 Filter Cassette (44685).
        4. FML 10 Metal Hood Supply Air (45149).
        5. IG 10 Inlet Guard (411124).
        6. IR 10 Iris Damper (411238).
        7. LD 10 Silencer (411286).
        8. MTP 10, 10K, Speed control (32731).
        9. RSK 10 Backdraft Damper (411116).

\*\* NOTE TO SPECIFIER \*\* Delete paragraph for Model FG 12XL EC if not required.

* + 1. Centrifugal Inline Fans: Model FG 12XL EC as manufactured by Fantech.
       1. Application: Designed for installation in ducts.
       2. Compliance: AMCA Air, HVI certified, cULus listed, Energy Star qualified.
       3. Performance: Fan air flow performance shall be based upon tests conducted in accordance with AMCA Standard 211 and shall be licensed to bear the AMCA Certified Ratings Label.
       4. Housing:
          1. Galvanized sheet metal with seams folded to give fan an airtight casing.
          2. Externally mounted electrical terminal box, pre-wired terminal strip connections.
       5. Motors: ECM motors with integrated motor protection.
          1. Motorized Impeller: External rotor type, class B insulation, enclosed with permanent split capacitor; acceptable for continuous duty.
          2. Protection: Equipped with automatic reset thermal overload protection.
          3. Motor Bearings: Permanently sealed, self-lubricating ball type.
          4. Fan Wheel: Backward inclined centrifugal type with an inlet venturi.
          5. Fan Wheel Materials: Molded high impact polypropylene.
          6. Vibration Control: Statically and dynamically balanced as one integral unit.
       6. Speed Control:
          1. Pre-wired Speed Control Potentiometer for air flow adjustments and balancing.
          2. External Speed Control: 0-10Vdc signal.
          3. Motor provides reference that can be used by remote mounted potentiometer.
          4. Motor provides operational speed (tachometer pulse) output that can be used to verify fan operation.
       7. Connection Collar: Minimum 1 inch (25 mm) long.
       8. Voltage: 120 V nominal.
       9. Frequency: 60 Hz.
       10. Phase: Single.
       11. Input Power: 166 W.
       12. Input Current: 1.16 A.
       13. Impeller Speed: 2510 rpm.
       14. Air Flow: Maximum 807.0 cfm (381 L/s).
       15. Temperature of Transported Air: Maximum 140 degrees F (60 degrees C).
       16. Enclosure Class, Motor: IP44.
       17. Insulation: Class B.
       18. Inlet Duct: Circular, 12 inches (305 mm).
       19. Outlet Duct: Circular, 12 inches (305 mm).
       20. Weight: 16 lb (7.3 kg).
       21. Accessories:

\*\* NOTE TO SPECIFIER \*\* Delete options for accessories not required.

* + - * 1. ADC 12 Shut-off Damper w Motor (44692).
        2. FC 12 Mounting Clamps (2 pcs) (411123).
        3. FGR 12 Filter Cassette (44686).
        4. FML 12 Metal Hood Supply Air (45150).
        5. IG 12 Inlet Guard (411128).
        6. IR 12 Iris Damper (411239).
        7. LD 12 Silencer (411287).
        8. MTP 10, 10K, Speed control (32731).
        9. RSK 12 Backdraft Damper (411117).

\*\* NOTE TO SPECIFIER \*\* Delete Article for inline duct fans if not required.

* 1. INLINE DUCT FANS

\*\* NOTE TO SPECIFIER \*\* Delete paragraph for Model PrioAir 6EC if not required.

* + 1. Inline Duct Fans: Model PrioAir 6EC as manufactured by Fantech.
       1. Application: Designed for installation in ducts.
       2. Certificates: cULus.
       3. Description: Aerodynamically optimized impellers and guide vanes with integrated external rotor motors in black airtight casing; each unit includes a mounting bracket.
       4. Speed Control:
          1. Pre-wired Speed Control Potentiometer for air flow adjustments and balancing.
          2. External Speed Control: 0-10Vdc signal.
          3. Motor provides reference that can be used by remote mounted potentiometer.
          4. Motor provides operational speed (tachometer pulse) output that can be used to verify fan operation.
       5. Motor Protection: Thermal overload protection with automatic reset.
       6. Motor Type: ECM.
       7. Voltage: 120 V nominal.
       8. Frequency: 60 Hz.
       9. Phase: Single.
       10. Input Power: 64 W.
       11. Input Current: 0.888 A.
       12. Impeller Speed: 4041 rpm.
       13. Air Flow: Maximum 445.0 cfm (210 L/s).
       14. Temperature of Transported Air: Maximum 131 degrees F (55 degrees C).
       15. Enclosure Class, Motor: IP44.
       16. Insulation: Class B.
       17. Inlet Duct: Circular, 6 inches (152 mm).
       18. Outlet Duct: Circular, 6 inches (152 mm).
       19. Weight: 3.7 lb (1.7 kg).
       20. Accessories:

\*\* NOTE TO SPECIFIER \*\* Delete options for accessories not required.

* + - * 1. ADC 6 Shut-off Damper with Motor (44967).
        2. FC 6 Mounting Clamps (2 pcs) (411120).
        3. HS 6W External Louver Exhaust (45153).
        4. LD 6 Silencer (411284).
        5. MTP 10, 10K, Speed control (32731).
        6. RSK 6 Backdraft Damper (411114).

\*\* NOTE TO SPECIFIER \*\* Delete paragraph for Model PrioAir 6EC if not required.

* + 1. Inline Duct Fans: Model PrioAir 8EC as manufactured by Fantech.
       1. Application: Designed for installation in ducts.
       2. Certificates: cULus.
       3. Description: Aerodynamically optimized impellers and guide vanes with integrated external rotor motors in black airtight casing; each unit includes a mounting bracket.
       4. Speed Control:
          1. Pre-wired Speed Control Potentiometer for air flow adjustments and balancing.
          2. External Speed Control: 0-10Vdc signal.
          3. Motor provides reference that can be used by remote mounted potentiometer.
          4. Motor provides operational speed (tachometer pulse) output that can be used to verify fan operation.
       5. Motor Protection: Thermal overload protection with automatic reset.
       6. Motor Type: ECM.
       7. Voltage: 120 V nominal.
       8. Frequency: 60 Hz.
       9. Phase: Single.
       10. Input Power: 123 W.
       11. Input Current: 1.58 A.
       12. Impeller Speed: 3619 rpm.
       13. Air Flow: Maximum 790.0 cfm (373 L/s).
       14. Temperature of Transported Air: Maximum 131 degrees F (55 degrees C).
       15. Enclosure Class, Motor: IP44.
       16. Insulation: Class B.
       17. Inlet Duct: Circular, 8 inches (203 mm).
       18. Outlet Duct: Circular, 8 inches (203 mm).
       19. Weight: 7.5 lb (3.4 kg).
       20. Accessories:

\*\* NOTE TO SPECIFIER \*\* Delete options for accessories not required.

* + - * 1. ADC 8 Shut-off Damper with Motor (44690).
        2. FC 8 Mounting Clamps (2 pcs) (411121).
        3. FML 8 Metal Hood Supply Air (45148).
        4. IR 8 Iris Damper (411237).
        5. LD 8 Silencer (411125).
        6. MTP 10, 10K, Speed control (32731).
        7. RSK 8 Backdraft Damper (411115).

\*\* NOTE TO SPECIFIER \*\* Delete paragraph for Model PrioAir 6EC if not required.

* + 1. Inline Duct Fans: Model PrioAir 10EC as manufactured by Fantech.
       1. Application: Designed for installation in ducts.
       2. Certificates: cULus.
       3. Description: Aerodynamically optimized impellers and guide vanes with integrated external rotor motors in black airtight casing; each unit includes a mounting bracket.
       4. Speed Control:
          1. Pre-wired Speed Control Potentiometer for air flow adjustments and balancing.
          2. External Speed Control: 0-10Vdc signal.
          3. Motor provides reference that can be used by remote mounted potentiometer.
          4. Motor provides operational speed (tachometer pulse) output that can be used to verify fan operation.
       5. Motor Protection: Thermal overload protection with automatic reset.
       6. Motor Type: ECM.
       7. Voltage: 120 V nominal.
       8. Frequency: 60 Hz.
       9. Phase: Single.
       10. Input Power: 164 W.
       11. Input Current: 2.11 A.
       12. Impeller Speed: 2629 rpm.
       13. Air Flow: Maximum 1237.0 cfm (584 L/s).
       14. Temperature of Transported Air: Maximum 131 degrees F (55 degrees C).
       15. Enclosure Class, Motor: IP44.
       16. Insulation: Class B.
       17. Inlet Duct: Circular, 10 inches (254 mm).
       18. Outlet Duct: Circular, 10 inches (254 mm).
       19. Weight: 9.4 lb (4.3 kg).
       20. Accessories:

\*\* NOTE TO SPECIFIER \*\* Delete options for accessories not required.

* + - * 1. ADC 10 Shut-off Damper with Motor (44691).
        2. FC 10 Mounting Clamps (2 pcs) (411122).
        3. IR 10 Iris Damper (411238).
        4. LD 10 Silencer (411286).
        5. MTP 10, 10K, Speed control (32731).
        6. RSK 10 Backdraft Damper (411116).

\*\* NOTE TO SPECIFIER \*\* Control features allow the RVF EC to be integrated into and play an active role in smart HVAC systems in buildings. Commonly used for remotely located exhaust for bathrooms, kitchens, utility rooms, and numerous applications where installation convenience and quiet nature of a remotely mounted fan are desirable. When installed on an exterior wall, ambient noise is kept outside. These fans are lightweight, compact, and simple to install. Delete Article for exterior centrifugal fans if not required.

* 1. EXTERIOR CENTRIFUGAL FANS

\*\* NOTE TO SPECIFIER \*\* Delete paragraph for Model RVF 6XL EC if not required.

* + 1. Exterior Centrifugal Fans: Model RVF 6XL EC as manufactured by Fantech.
       1. Application: Exterior, wall-mount exhaust fans.
       2. Certificates: cULus.
       3. Impeller: Backward-curved blades.
       4. Housing: Galvanized sheet metal with white powder-paint coating, removable for access to motor and wiring connections.
       5. Speed Control:
          1. Pre-wired Speed Control Potentiometer for air flow adjustments and balancing.
          2. External Speed Control: 0-10Vdc signal.
       6. Motor Type: ECM.
       7. Voltage: 120 V nominal.
       8. Frequency: 60 Hz.
       9. Phase: Single.
       10. Input Power: 69 W.
       11. Input Current: 0.948 A.
       12. Impeller Speed: 2501 rpm.
       13. Air Flow: Maximum 409.0 cfm (193 L/s).
       14. Temperature of Transported Air: Maximum 104 degrees F (40 degrees C).
       15. Enclosure Class, Motor: IP44.
       16. Insulation: Class B.
       17. Inlet Duct: Circular, 6 inches (152 mm).
       18. Outlet Duct: Circular, 6 inches (152 mm).
       19. Weight: 16.6 lb (7.5 kg).
       20. Accessories:

\*\* NOTE TO SPECIFIER \*\* Delete options for accessories not required.

* + - * 1. CG 6 Contour Grille (40309).
        2. FC 6 Mounting Clamps (2 pcs) (411120).
        3. FTD7 7 Day Digital Timer (49792).
        4. MGE 6 Metal Exhaust Grill (411371).
        5. MGS 6 Metal Supply Grill (411242).
        6. MTP 10, 10K, Speed control (32731).
        7. RSK 6 Backdraft Damper (411114).

\*\* NOTE TO SPECIFIER \*\* Delete paragraph for Model RVF 6XL EC if not required.

* + 1. Exterior Centrifugal Fans: Model RVF 8XL EC as manufactured by Fantech.
       1. Application: Exterior, wall-mount exhaust fans.
       2. Certificates: cULus.
       3. Impeller: Backward-curved blades.
       4. Housing: Galvanized sheet metal with white powder-paint coating, removable for access to motor and wiring connections.
       5. Speed Control:
          1. Pre-wired Speed Control Potentiometer for air flow adjustments and balancing.
          2. External Speed Control: 0-10Vdc signal.
       6. Motor Type: ECM.
       7. Voltage: 120 V nominal.
       8. Frequency: 60 Hz.
       9. Phase: Single.
       10. Input Power: 90 W.
       11. Input Current: 1.22 A.
       12. Impeller Speed: 2280 rpm.
       13. Air Flow: Maximum 574.0 cfm (271 L/s).
       14. Temperature of Transported Air: Maximum 104 degrees F (40 degrees C).
       15. Enclosure Class, Motor: IP44.
       16. Insulation: Class B.
       17. Inlet Duct: Circular, 8 inches (203 mm).
       18. Outlet Duct: Circular, 8 inches (203 mm).
       19. Weight: 17.4 lb (7.9 kg).
       20. Accessories:

\*\* NOTE TO SPECIFIER \*\* Delete options for accessories not required.

* + - * 1. FC 8 Mounting Clamps (2 pcs) (411121).
        2. FTD7 7 Day Digital Timer (49792).
        3. MGE 8 Metal Exhaust Grill (411244).
        4. MGS 8 Metal Supply Grill (411243).
        5. MTP 10, 10K, Speed control (32731).
        6. RSK 8 Backdraft Damper (411115).

\*\* NOTE TO SPECIFIER \*\* Delete paragraph for Model RVF 6XL EC if not required.

* + 1. Exterior Centrifugal Fans: Model RVF 10 EC as manufactured by Fantech.
       1. Application: Exterior, wall-mount exhaust fans.
       2. Certificates: cULus.
       3. Impeller: Backward-curved blades.
       4. Housing: Galvanized sheet metal with white powder-paint coating, removable for access to motor and wiring connections.
       5. Speed Control:
          1. Pre-wired Speed Control Potentiometer for air flow adjustments and balancing.
          2. External Speed Control: 0-10Vdc signal.
       6. Motor Type: EC.
       7. Voltage: 120 V nominal.
       8. Frequency: 60 Hz.
       9. Phase: Single.
       10. Input Power: 127 W.
       11. Input Current: 1.65 A.
       12. Impeller Speed: 1705 rpm.
       13. Air Flow: Maximum 928.0 cfm (438 L/s).
       14. Temperature of Transported Air: Maximum 104 degrees F (40 degrees C).
       15. Enclosure Class, Motor: IP44.
       16. Insulation: Class B.
       17. Inlet Duct: Circular, 10 inches (254 mm).
       18. Outlet Duct: Circular, 10 inches (254 mm).
       19. Weight: 27.7 lb (12.6 kg).
       20. Accessories:

\*\* NOTE TO SPECIFIER \*\* Delete options for accessories not required.

* + - * 1. FC 10 Mounting Clamps (2 pcs) (411122).
        2. FTD7 7 Day Digital Timer (49792).
        3. MTP 10, 10K, Speed control (32731).
        4. RSK 10 Backdraft Damper (411116).

\*\* NOTE TO SPECIFIER \*\* Not all fresh air appliances are compatible with every model of wall control unit. Consult manufacturer's website, literature or customer service for details and to confirm compatibility. Delete Article for wall control units if not required.

* 1. WALL CONTROL UNITS

\*\* NOTE TO SPECIFIER \*\* Delete paragraphs for wall control units not required.

* + 1. Wall Control Units: Eco-Touch Wall Control as manufactured by Fantech.
    2. Wall Control Units: EDF 1 Electronic Control as manufactured by Fantech.
    3. Wall Control Units: EDF 7 Electronic Dehumidistat as manufactured by Fantech.
    4. Wall Control Units: EDF 1R Electronic Control as manufactured by Fantech.
    5. Wall Control Units: RTS 5 Electronic Timer as manufactured by Fantech.
    6. Wall Control Units: FTD7 7 Day Digital Timer as manufactured by Fantech.

1. EXECUTION
   1. EXAMINATION AND PREPARATION
      1. Prepare substrates using the methods recommended by the manufacturer for achieving best result for the substrates under project conditions.
      2. Do not proceed with installation until substrates have been prepared using the methods recommended by the manufacturer and deviations from manufacturer's recommended tolerances are corrected. Commencement of installation constitutes acceptance of conditions.
      3. If preparation is the responsibility of another installer, notify Architect in writing of deviations from manufacturer's recommended installation tolerances and conditions.
   2. INSTALLATION
      1. Install in accordance with manufacturer's instructions, approved submittals and in proper relationship with adjacent construction.
   3. FIELD QUALITY CONTROL
      1. Field Inspection: Coordinate field inspection in accordance with appropriate sections in Division 01.

\*\* NOTE TO SPECIFIER \*\* Include if manufacturer provides field quality control with onsite personnel for instruction or supervision of product installation, application, erection or construction. Delete if not required.

* + 1. Manufacturer's Services: Coordinate manufacturer's services in accordance with appropriate sections in Division 01.
  1. CLEANING AND PROTECTION
     1. Clean and protect products in accordance with the manufacturer's recommendations.
     2. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION