

# Guide Specification

## Fantech Commercial Energy Recovery Ventilator

### Ducted Indoor Model

### SER11504N

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#### Part I – General

##### A. Product Specification

Energy recovery ventilator shall be as manufactured by "Fantech" or approved equal provided all specifications are met. Fantech SER commercial series shall be used as the basis of design.

##### B. Requirements

1. Unit shall be CSA Certified to safety standards CSA C22.2 No. 113 Fans and Ventilators and UL 1812 Ducted Heat Recovery Ventilators.
2. Performance shall be as scheduled on plans.
3. Exhaust discharge and outside air intake shall be located on the same side.
4. The unit shall be capable of operating in winter conditions without frost buildup.
5. The heat recovery core shall be of aluminum fixed plate, cross flow construction, with no moving parts.

#### Part II – Product

##### A. Cabinet

1. Cabinet shall be constructed of G90 galvanized, 20 gauge steel sheet with lapped corners. All exposed surfaces shall be coated with baked powder paint. All seams shall be sealed, requiring no caulking at job site.
2. The unit shall be fitted with a full length drain pan for controlled condensate drainage including two drains spouts with 12.7mm (½ inch) barbed fittings for easy connection.
3. Unit casing shall be insulated with 25mm (1 inch) and 50mm (2 inch) foil-faced high density polystyrene foam for condensation control. The flame spread index of the insulation material shall not be over 25 and its smoke developed index shall not be over 50 when tested in accordance with the Standard for Tests for Surface Burning Characteristics of Building Material, UL723. Insulation shall be secured to unit with waterproof adhesive and permanent mechanical fasteners.

##### B. Energy Recovery Core

1. The energy recovery core shall be manufactured from a flame-proof/polyester-based synthetic paper which is designed to transfer sensible and latent energy. The flame spread index of the energy recovery core shall not be over 25 and its smoke developed index shall not be over 50 when tested in accordance with the Standard for Tests for Surface Burning Characteristics of Building Material, UL723.

##### C. Electrical

1. Electrical box shall be isolated from the airflows and all integral wires and connections protected.
2. All internal electrical components shall be factory wired for single point power connection.
3. All electrical components shall be UL Listed or Recognized and CSA Certified or Accepted where applicable and wired in compliance with the National Electrical Code.

##### D. Fan Sections & Motors

1. Fans shall be Ebm-Papst backward inclined motorized impellers.



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2. Fan motor shall have maintenance-free permanently lubricated sealed ball bearings.
3. Fan motor shall be (TOP) thermal overload protected.
4. Fan motor shall be UL listed to UL1004 and/or UL2111, CSA C22.2 No. 77 and/or No.100.
5. Fan motor shall have minimum IP protection class 44 according to DIN 40 050.
6. Separate fans for exhaust and supply blowers shall be provided.

#### E. Filters

1. The exhaust and fresh air streams shall both be protected by MERV1 washable filters constructed to meet UL Class 2.

### PART – III Execution

#### A. Serviceability

1. Unit shall have hinged and/or screwed access panels on front and back.
2. Cores, filters, motors and drain pan shall be serviceable from either side of the unit.
3. Fan assemblies shall be mounted on a removable sliding base. Energy recovery core and filters shall be mounted in slide-out rails for ease of inspection, removal, and cleaning.
4. Accessibility to the electrical box shall be maintained for any unit installation.

#### B. Installation

1. Unit shall be rod mounted or seated on a platform.
2. Flanged connection shall be provided for suitable ductwork connection.
3. Unit shall be adaptable for easy service of electrical components.

#### C. Warranty

The energy recovery ventilator shall be warranted to be free from defects in material, workmanship and on all parts for a period of 3 year from the purchase date. The energy recovery core shall be warranted to be free from defects in material and workmanship for a 5 years period under circumstances of normal use.



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