

## Product Specification

### **Ecovent<sup>®</sup> *hybrid extract* (EVHE) Classroom Extract Ventilation Units**

#### **1.1. General**

A. Provide a heat recovery air handling unit to meet the performance and configuration as indicated in the schedule and detail drawings. The heat recovery air handling unit shall be tested to BS EN ISO 5801:2017 and shall be of the Ecovent type as manufactured by VES Andover Ltd, a company accredited with BS EN ISO 9001:2015.

#### **1.2. Unit Construction**

- A. The unit shall be provided pre-assembled comprising a rigidly constructed aluminium case, single skinned fully insulated galvanised sheet steel panels finished to RAL9010 semi-gloss as standard, forward curved supply fans and direct drive fan motors.
- B. The unit shall be supplied in one section.
- C. The unit shall be available in plantroom construction as indicated in the schedule and detail drawings.
- D. The unit shall be fitted with a back draught shutter arrangement to ensure extract airflow only
- E. Access for maintenance shall be via a removable lid or panels, allowing access for the cleaning or removal of internal components as indicated in the detail drawings.
- F. Casework shall incorporate mounting brackets compatible with drop-rod systems.
- G. Access and handing options shall be as indicated in the schedule and detail drawings.
- H. The unit shall have component arrangement as indicated in the schedule and detail drawings

#### **1.3. Fans**

- A. The fan impellers shall be statically and dynamically balanced to G 2.5 / G 6.3 according to either VDE2060 or ISO 21940-11:2016 for smooth running and extended life.
- B. The fan impellor shall be mated with an aerodynamic fan scroll for high efficiency and low noise generation.
- C. The fan impellers shall be supplied in natural uncoated finish as standard.

#### **1.4. Motors**

- A. The fans shall incorporate external rotor motors to insulation class F, IP4X environmental protection rating and shall be supplied with thermal protection cut-out as standard.

#### **1.5. Operation Environment**

- A. The unit shall be designed to operate in ambient temperatures from -20 °C up to +40 °C and to run continuously at up to 90% relative humidity level.

#### **1.6. Controls**

- A. The unit shall be fitted with an EC fan speed control system with max/min speed and 0-10 VDC BMS control, i.e. Air Quality or Temperature sensor, as standard.
- B. The unit shall be fitted with a plate-mounted terminal arrangement suitable for direct controls connection to a master supply hybrid unit.
- C. The terminal arrangement shall incorporate a circuit breaker where indicated in the schedule and detail drawings.
- D. Fitted terminals shall be fully pre-wired to internal components

#### **1.7. Ancillaries**

- A. The unit shall be fully compatible with a range of spigot and unit mounted transitions pieces. The transition pieces shall be suitable for direct mounting to the unit.
- B. The transition pieces shall be a rigidly constructed single skinned galvanised sheet steel case lined with acoustic foam.
- C. The transition piece casework shall be provided with high quality galvanised steel finished to RAL9010 semi-gloss as standard.