

## ECOSMART SQRUBO EXTRACT

### Consultants Specification

#### Extract Unit specification

The Unit shall be configured and arranged as detailed on the drawings and in accordance with the schedule of equipment. Unit shall be manufactured from acoustically lined, heavy gauge pre-galvanised, corrosion resistant steel. The units shall provide exceptional thermal and acoustic insertion. The general construction is to class A leakage.

The unit will be manufactured to provide a low height solution to enable it to be located in low depth ceiling and floor voids. For ease of installation the unit shall be provided with a single point mounting bracket with integrated, anti vibration strips.

The extract fan shall have complimentary controls which will enable it to interface directly with the supply unit via a low voltage pre-plugged cable.

The fan impeller and motor shall be selected to provide the most energy efficient solution conforming to part L regulations and shall be direct drive with high efficiency motors to BS5000 as standard. The fan impeller shall be a high efficiency backward curved centrifugal design, manufactured in galvanised steel.

The contractor shall allow for all necessary ductwork transformations to and from the fan unit and any associated components in accordance with the manufacturers recommendations, DW 144 and general good practice.

The unit and ancillaries shall be of the Ecosmart Sqrubo type as manufactured by Nuaire Ltd.

All other components shall be in accordance with the manufacturer's specification.

#### Control Specification

The fan unit shall be supplied with one of the following control options:-

##### 1. Ecosmart controls

The compact Ecosmart control system complete with all necessary controls to facilitate the operation of the ventilation system. It shall be come complete with an integral factory fitted Ecosmart PCB which will control the fan unit within the desired design parameters and provide the interface between all external control devices and the unit itself.

The Unit shall have the following energy saving components integrally mounted, pre-wired to interface with the purpose made PCB, all components pre-wired, configured and factory fitted by the manufacturer: -

- Integral Frequency inverter/speed controller.
- Integral maximum and minimum speed adjustment for commissioning.
- Integral adjustable run on timer.
- Integral BMS interfaces – summer/winter switching, heating control, 0-10V speed adjustment. (using ES - UCFT).
- Volt free failure and status indication.
- Integral air off temperature adjustment.
- Facility for remote temperature control.
- Integral background ventilation switch (trickle switch).
- Multiple IDC sockets for interconnection of sensors or fans using pre-plugged 4-core low voltage cable.
- Volt free frost alarm/heat demand interface.
- Frost protection/hold off stat.

The Fan unit shall have a 5 year warranty.