

CONSULTANTS SPECIFICATION

SPECIFICATION

The Nuair Sunwarm Air Pre-heat Ventilation System shall be in the form of a flat plate solar air collector using a coated absorber with minimum resistance to air flow, encased in a pre-painted aluminium frame structure with aluminium back plate capable of in roof installation.

The solar air collector shall have 3mm thick polycarbonate cover.

The solar air collector must incorporate an integral flashing system for in roof installation and should have passed tests in accordance to BS EN12975.

The solar air collector must be well insulated using an approved sustainable insulation material.

All external fitting components should be made of stainless steel, galvanized steel or aluminium to avoid corrosion. The solar air collectors must be well insulated to reduce heat losses and must include an over temperature protection device to ensure collector temperature does not to exceed 100°C.

The weight of each collector should not exceed 61Kg.

The system shall use DC fans with low noise and low wattage dampers.

The electronic controls must be easy to use and intuitive and must include automatic selection of fresh air source to provide warm air as well as fresh filtered air cooling.

The unit casing shall be manufactured from thermally insulated expanded polypropylene foam moulding. The unit shall incorporate filters of G4 grade with an area of approximately 0.47m².

The unit shall incorporate a forward curved centrifugal impeller and high efficiency brushless DC motor fitted with sealed for life, self lubricating bearings with locked rotor protection. The unit shall incorporate 3 air inlet spigots, each with an integral damper, to allow air to be drawn into the unit from the collectors, loft space and outside.

The unit shall be supplied with a diffuser of design which provides efficient, directional controlled air supply using side blanking pieces supplied. The diffuser design shall minimise the accumulation of any condensate run off that may occur in the event of power to the unit being switched off.

The diffuser shall have been independently assessed by the BRE for behaviour in relation to fire and adjacent smoke detectors.

Optional fire damper and diffuser for use in fire protected stairwells in 3 storey properties (please refer to page 4).

All ducting within the loft space must be rigid insulated foam 180mm diameter, supplied by Nuair Ltd.

The unit shall be supplied with all the necessary temperature sensors and interconnecting cables. The unit shall incorporate selectable volume control for duties from 15l/s to 40l/s for maximum flexibility and occupant comfort.

The unit shall be supplied with a user control panel and interconnecting cable. The user control shall allow selection of on/off, auto/boost and target temperature. The control shall also provide unit/filter status indication.

An internal monitor shall record the unit's operational time.

The system may provide a solution for acoustic ventilation where required as per PPG24 – seek guidance from Nuair's Technical Dept.

The unit shall be offered with at least 5 year parts warranty and at least 2 year labour warranty.

For information on reducing radon ingress, it is suggested that the details given in Positive pressurization: a guide to radon remedial measures in existing dwellings may be considered. (See www.nuair.co.uk).