

**Standard Assessment Procedure – Solar Air Preheat Positive Input Ventilation - Design Checklist**

**Design Checklist**

Solar Air Preheat Positive Input Ventilation (Version 2 – 24.02.11)

<b>Customer Details:</b>
<b>Customer Name:</b>
<b>Address:</b>
<b>Telephone Number:</b>
<b>Date of Installation:</b>
<b>Name of Lead Contractor:</b>
<b>Installer Name/Company:</b>
<b>Project Reference Number:</b>

<b>SAP Identifier:</b>
<b>Technology type: Ventilation</b>
<b>Technology category: Solar Air Preheat Positive Input Ventilation</b>
<b>Brand name:</b>
<b>Model name:</b>
<b>Model qualifier:</b>

Completion of this document is a requirement for inclusion of product data within the Standard Assessment Procedure

**Note: All checklist items must be ticked in order for Solar Air Preheat Positive Input Ventilation systems to be used in SAP calculations. Systems must be designed and sized correctly to achieve the energy savings associated with this product.**

**Standard Assessment Procedure – Solar Air Preheat Positive Input Ventilation - Design Checklist**

**SECTION 1: INSTALLATION**

<b>1. Ductwork Installation and airflow distribution</b>	Decision
Refer to the unit's installation manual for the optimum ducting arrangement, and prepare drawings and a schedule of materials for the installation. The Designer's specification for product installation shall reflect the general advice given in the "Domestic Ventilation Compliance Guide", the advice provided by the manufacturer in respect of compliance with <i>The Building Regulations 2000 - Approved Document F1</i> , and the manufacturer's installation guidance.	✓ / ✗
The materials schedule shall only specify ductwork specified by the manufacturer	
The drawings shall show a ducting layout that minimises the number of bends and resistance to airflow	
The materials schedule shall specify the appropriate quantity of the ductwork manufacturer's joining collars. A note shall be appended requiring that all ductwork connections are sealed.	
The materials schedule shall specify grilles and air inlets etc. of dimensions appropriate to the air flow rates required (see section 2).	
Where grilles or ductwork penetrate the building's air barrier, a detail shall be provided showing the appropriate method of sealing the barrier.	
The location of the diffuser shall be specified and installation notes appended reflecting the relevant adaptations as recommended by the unit manufacturer.	
The installation drawings shall include a note requiring that all internal doors shall have a minimum 10mm undercut.	
<b>2. Air Handling Unit Fixing</b>	Decision
Refer to the unit's installation manual for the correct unit mounting arrangement.	✓ / ✗
The materials schedule and drawings shall specify an appropriate location and design for the mounting of the air handling unit.	
The designer shall specify the requirements for service access to the unit.	
<b>3. Electrical Connection</b>	Decision
	✓ / ✗
The designer shall specify the required power supply, cable types (power and control), fusing, and isolation requirements. Reference to national electrical installation standards is preferred.	
The position of any auxiliary sensors shall be detailed in the drawings.	
The position of the User Control shall be detailed in the drawings.	

<b>4. Collector Installation</b>	Decision
Refer to the Collector installation manual for the correct mounting arrangement.	✓ / ✗
The designer shall establish and detail the optimum available position for collector location on the property roof.	
The designer shall state the conditions of collector orientation and shading on which the design is based.	
The structural and weathering detail of the collector installation shall be assessed if within the scope of works. (Collector installation is often outside the ventilation system design contract).	

<b>Standard Assessment Procedure – Solar Air Preheat Positive Input Ventilation - Design Checklist</b>	
<b>SECTION 2: VENTILATION SYSTEM DESIGN</b>	
<b>1. Required Airflow rates</b>	Decision ✓ / ✗
The designer shall establish the required ventilation flow rate for the property in accordance with <i>The Building Regulations 2000 - Approved Document F1</i> .	
<b>Required Airflow rate (l/s)</b>	
With reference to the requirements of <i>The Building Regulations 2000 - Approved Document F1</i> , manufacturer's installation instructions and the specific layout and construction of the property, the designer shall establish if any additional means of ventilation or system components are required for the correct operation of the system. Any such items shall be fully detailed in the drawings and material schedules.	

<b>Standard Assessment Procedure – Solar Air Preheat Positive Input Ventilation - Design Checklist</b>	
<b>SECTION 3: DESIGNER DECLARATION</b>	
I / We declare that the design for this Solar Air Preheat Positive Input Ventilation system installation has been prepared in accordance with the manufacturer's recommendations and that the required verification procedures have been followed.	
System design authority:	
<input type="text"/>	
Designer's name ( please print ):	
<input type="text"/>	
Designer's signature:	
<input type="text"/>	
Date:	
<input type="text"/>	

**Standard Assessment Procedure – Solar Air Preheat Positive Input Ventilation - Installation Checklist and Certificate of Installation**

**Installation Checklist and Certificate of Installation**

Solar Air Preheat Positive Input Ventilation (Version 2 – 24.02.11)

<b>Customer Details:</b>
Customer Name:
Address:
Telephone Number:
Date of Installation:
Name of Lead Contractor:
Installer Name/Company:
Project Reference Number:
<b>SAP Identifier:</b>
Technology type: Ventilation
Technology category: Solar Air Preheat Positive Input Ventilation
Brand name:
Serial No:
Model name:
Model qualifier:

It should be noted that this guidance is not intended to replace the product manufacturer's installation instructions; it is a generic addition which defines good practice. Installers must complete this form for each installation and retain a copy for their records and if requested by Building Control Officers. A further copy must be provided to the manufacturer and the homeowner.

**Introduction**

Completion of this document is a requirement for inclusion of product data within the Standard Assessment Procedure. The installer shall refer to the Solar Air Preheat Positive Input Ventilation design checklist, installation drawings and materials schedule.

**Note: All checklist items must be ticked in order for Solar Air Preheat Positive Input Ventilation systems to be used in SAP calculations. Systems must be designed and sized correctly to achieve the energy savings associated with this product.**

**Standard Assessment Procedure – Solar Air Preheat Positive Input Ventilation - Installation Checklist and Certificate of Installation**

**SECTION 1: INSTALLATION GUIDANCE**

<b>1. Ductwork Installation and airflow distribution</b>	Decision
Refer to the unit's installation manual for the correct ducting arrangement.	✓ / ✗
Is the ductwork of the type specified by the manufacturer?	
<b>Flexible duct provided should only be used to connect the unit to the central diffuser (this is important for the acoustic performance of the product).</b>	
Have the number of duct bends been minimised to ensure adequate air flow and least resistance?	
Have recommended duct jointing collars and components been used to ensure appropriate duct performance (duct runs should be as air tight as possible)? Note: All the joints should be sealed correctly using the collars provided.	
Have all grilles or ductwork that penetrate the building's air barrier, as identified in the construction drawings, been sealed to ensure continuity of the air barrier?	
Is the diffuser correctly situated, secured and adjusted ?	
Do all internal doors have 10mm undercuts ? (as required in "Domestic Ventilation Compliance Guide" Part 2b Table 2.3a)	
<b>2. Air Handling Unit Fixing</b>	Decision
Refer to the unit's installation manual for the correct mounting arrangement.	✓ / ✗
Has the Air handling unit been fixed to a stable element of the building fabric (e.g. wall or floor) using manufacturer's recommended/supplied fixing brackets?	
Has the unit been installed in a position that will permit access for maintenance purposes?	

<b>3. Electrical Connection</b>	Decision ✓ / ✗
Has the rating label been verified to establish suitability for the installation strategy and whether an earth is required (e.g. voltage, class I or II product status)?	
Has a means of local isolation been provided to enable the unit to be isolated for maintenance purposes?	
Has the unit been fused in accordance with its power rating?	
Have the sensors been located and fitted correctly ?	
Are all cables securely clipped and enclosures securely fastened ?	
Is the user control fitted securely ?	
Has the user control operation been verified ?	
<b>4. Collector Installation</b>	Decision ✓ / ✗
Refer to the Collector installation manual and Design checklist for the correct mounting arrangement.	
Is the collector orientation within the manufacturer's guidelines ?	
Is the collector shading within the manufacturer's guidelines ?	
Is the collector flashing correctly installed ?	
Is the collector fixed securely in accordance with the manufacturer's instructions ?	
Is the temperature relief valve clear of obstruction ?	

<b>Standard Assessment Procedure – Solar Air Preheat Positive Input Ventilation - Installation Checklist and Certificate of Installation</b>	
<b>SECTION 2: COMMISSIONING GUIDANCE</b>	
<b>1. System Balancing &amp; Calibration</b>	Decision ✓ / ✗
Have the unit controls been set following the process below ?	
Step 1 Ensure all external and internal windows and doors are closed	
Step 2 Establish normal air flow rates based on house size / number of bedrooms (For appropriate flow rate refer to Design checklist - Section 2)	
Airflow rate (l/s)	<input type="text"/>
Step 3 Set fan speed using manufacturer's data table	
Step 4 Measure supply airflow rate at diffuser with a calibrated airflow meter	
Airflow rate measured (l/s)	<input type="text"/>

<b>Standard Assessment Procedure – Solar Air Preheat Positive Input Ventilation - Installation Checklist and Certificate of Installation</b>	
<b>SECTION 3: USER INFORMATION</b>	
<b>1. Handover and Control/Maintenance Advice</b>	Decision ✓ / ✗
Has the customer been supplied with suitable documentation detailing maintenance and operational requirements?	
Has the customer been advised that opening windows is not recommended during normal use in order to ensure the energy efficient operation and balanced performance of the system?	
Has the customer been advised not to seal natural air flows from room to room (e.g. avoid door seals and thick pile carpets)	
Has the customer been advised not to alter settings post-commissioning?	
Has the customer been advised to replace filters annually as explained in the manufacturer's instructions?	

<b>Standard Assessment Procedure – Solar Air Preheat Positive Input Ventilation - Installation Checklist and Certificate of Installation</b>	
<b>SECTION 4: INSTALLER DECLARATION</b>	
I / We declare that the Solar Air Preheat Positive Input Ventilation system has been installed in accordance with the manufacturer's recommendations and that the required verification procedures have been followed.	
Installation Company:	
<input type="text"/>	
Installer's name ( please print ):	
<input type="text"/>	
Installer's signature:	
<input type="text"/>	
Date:	
<input type="text"/>	