



Mark Heat Recovery Systems

“The Home Of Good Ventilation”

**Heat Recovery Ventilation Specialists (MVHR)
Design | Supply | Installation | Commissioning | Servicing**

Whole House Heat Recovery Ventilation Proposal - MVHR

Prepared For: **Nav**

Quotation: **MW – 06478**

Email: njayinvestmentsltd@gmail.com

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Why Mark Heat Recovery Systems?

Mark Heat Recovery is a company that cares first and foremost; we regard this as one of the most important elements of Mark Heat recovery. We care about our customers and promise to find the best solutions for you and your build. As an independent company, you can trust Mark Heat Recovery to do this – it is in our Company DNA.

There is a strong belief within Mark Heat Recovery Systems share 'The Company DNA' and visions. We are passionate about our service, committed to our customers and resourceful in everything that we do. We uphold uncompromising integrity and demonstrate honest and ethical behaviour in all of our transactions. Above all, we place the success of our business and its people ahead of any personal gain.

High levels of experience and expertise our experienced will ensure that we will find the best ventilating solutions for your build. So, why look any further than Mark Heat Recovery Systems for all of your ventilating needs?

Full design layout service prior to supplying you with your brand-new top-of-the-range Heat Recovery Ventilation system, Mark Heat Recovery Systems will complete a full design layout drawing for your build, ensuring that installation is made easy and straight forward.

Full Installation, or Site Support and commissioning visit if you don't fancy getting your hands dirty, we offer a full installation service if required. Alternatively, we also offer our Site Support service, where a member of our technical/installation team attends your site for a day to instruct your own installers and help get the installation off to a flying start! And finally, our Commissioning service is available to give you peace-of-mind and necessary documentation for Building Regulation requirements.

After Sales Service - Servicing visit / Filter change – Mark Heat Recovery offer a servicing visit, in fully for fills the operation of the unit is working to its full potential, this is recommended that a service visit is taken out once a year, likewise we send you a 6-month filter letter reminder in which suggests that your filters get replaced on a regular basis, servicing visit reminder gets sent out once a year. We also offer a servicing visit contract; more information can be made on request.

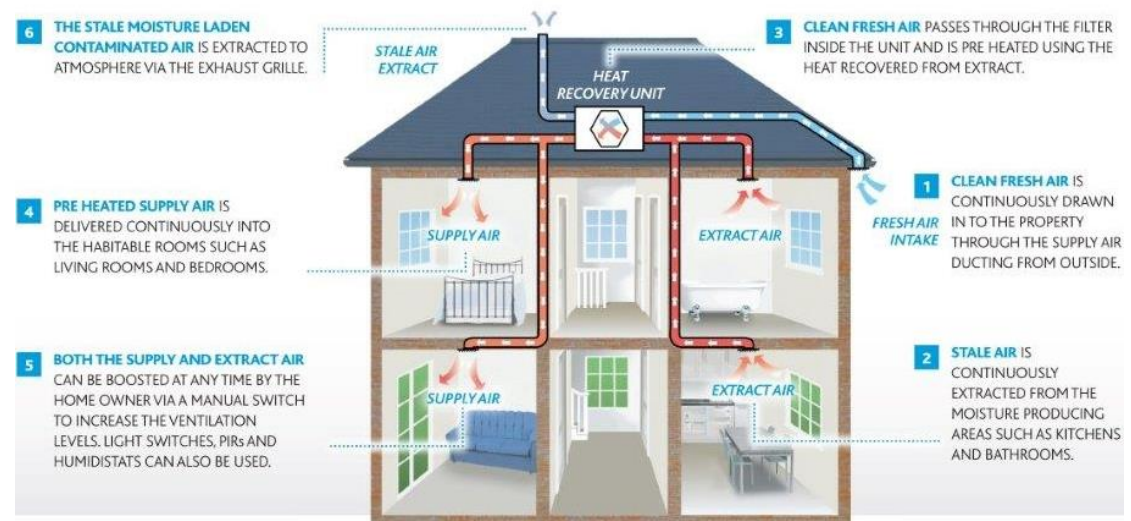
How Does MVHR work?

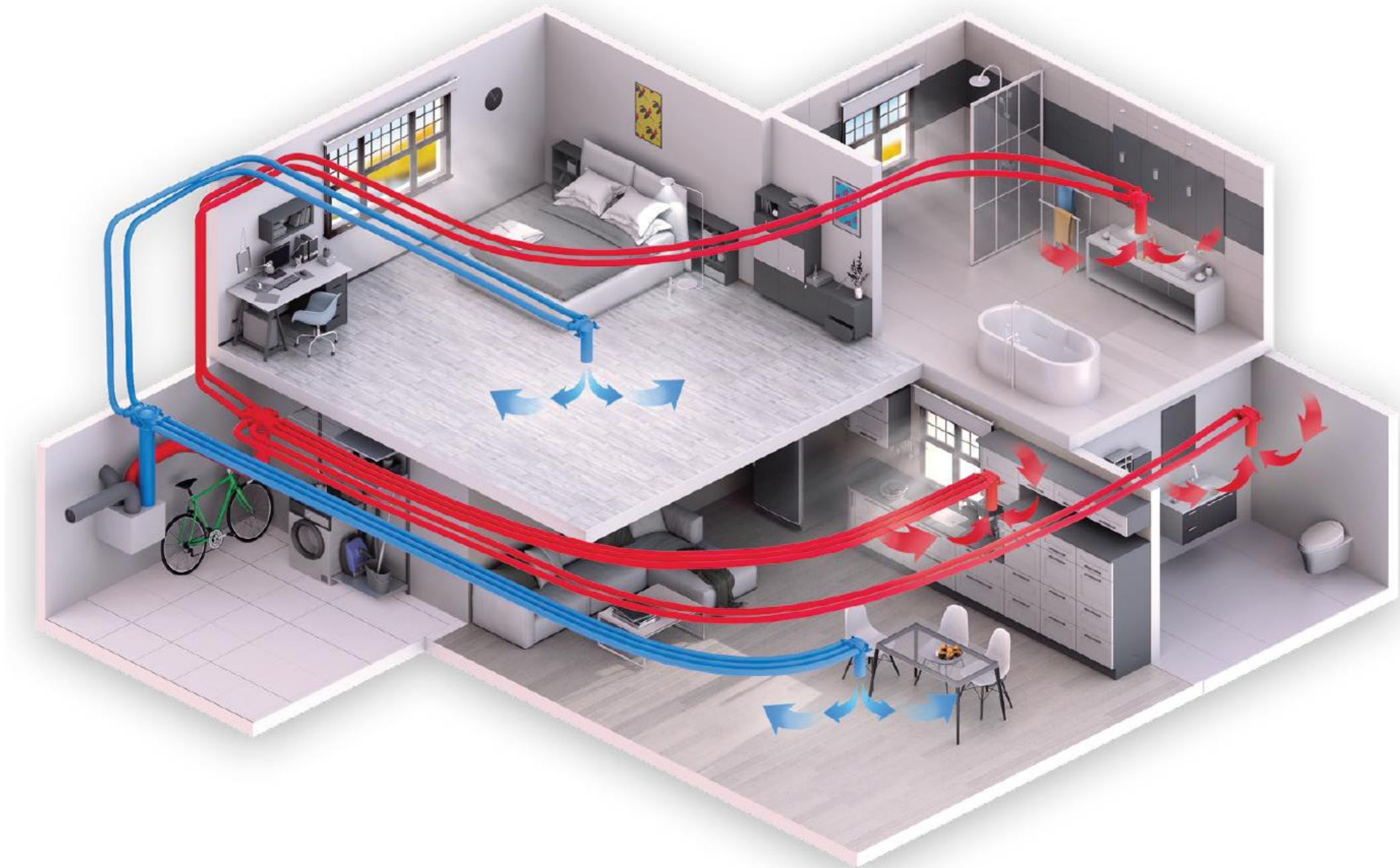
Step 1 - Dirty, stale air is continually extracted from all the wet areas by the heat recovery unit, through unobtrusive white steel ceiling or wall mounted extract registers.

Step 2 - This air then makes its way through the 75mm radial ducting system, directly back to extract plenum box by directly connecting each inlet/outlet there is zero leakage from there then back to the heat recovery unit via galvanised rigid ducting. Before being discharged outside, it passes through the counter flow heat exchanger giving up its heat to the cold fresh air coming into the house.

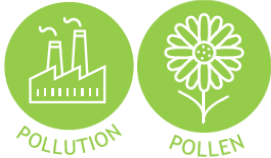
Step 3 - The warm highly filtered supply air is then pre heated using the heat recovered from the extraction and re distributed (up to 90% efficiency) ensuring no cold draughts, which must be avoided.

Step 4 - The supply air is now delivered through the smooth bore 75mm radial ducting, through ceiling or wall mounted supply registers by the heat recovery unit, to all the habitable rooms (the lounge, dining room, family room, study, all bedrooms) resulting in whole house ventilation.





Benefits of Heat Recovery Ventilation (MVHR)



Health Benefits of Heat Recovery Units it is vital to your health and well-being to change all the air in homes, continually replacing the stale contaminated air with highly filtered, fresh air from outside. A Heat Recovery Ventilation system will provide a constant supply of fresh air to the house. Before entering your home, this air will be filtered of dust, pollution and pollen, creating a very healthy living environment.



Highly Energy Efficient a Heat Recovery Ventilation system will ensure high levels of energy-efficiency and significant savings on heating costs. Unlike out-dated systems, a Heat Recovery Ventilation system will not simply 'dump' all of the heat from the extract air outside the house. Before being discharged outside, the extract air passes through the plate or counter flow heat exchanger within the Heat Recovery Ventilation Unit, giving up its heat to the cold fresh air coming into the house. All of our heat exchangers are of the highest specification and heat recovery efficiency. They will improve your **SAP** rating rather than detract from it.



No more trickle vents or extractor fans a whole house Heat Recovery Ventilation system will completely negate the need for trickle vents in your windows and extractor fans in any wet rooms. This fully complies with Building Regulations and so there is no need to ruin your brand-new expensive windows!



An end to Condensation Problems moist air in your home can lead to condensation problems, the build-up of which can cause real damage and expense. A highly-insulated house will suffer from such problems if not well ventilated. A Heat Recovery Ventilation system will ensure that all moist and humid air is constantly removed from wet areas in the house, preventing problems of condensation and fungal growth, the spores of which can be seriously detrimental to the health of the occupants.



Hot & humid summer days during the hot & humid days, the MVHR will take over and extract the heat generate from your property, and allow cool filtered fresh air to be transferred around your home, saves you opening windows and doors.



The fresh air from the MVHR system will tackle everyday strong odours in your property typically emanating from cooking and pets that would ordinarily linger for days! By controlling the humidity within the home, dust mites are less able to breed and the population will diminish, helping asthma and dust mite sufferers to breathe more easily. However, by ensuring that there is a continuous supply of filtered fresh air, this is the quickest and most effective method of getting rid of the number of house dust mite.



Worried about leaving your window upstairs open whilst you are in bed? The MVHR will constantly supply fresh air round your home, so there are no more sleepless nights worrying about security issues.

Heat Recovery unit + Controls – VENT AXIA SENTINEL KINETIC PLUS BH

- **FULLY AUTOMATIC** summer bypass
- Heat Recovery efficiency up to 90%
- Suitable for houses up to **150 m²**
- The unit shall incorporate an integral humidity sensor with the following features:
 - Ambient Response; Raises the humidity trigger point as dwelling temperature reduces
 - Rapid Response: Monitors the rate of change in humidity and triggers increased airflow even if the humidity trigger threshold is not reached
 - Proportional Response; Incrementally increases the fan speed to reduce noise and reduce energy consumption
- Recognised in **SAP Appendix Q**
- Ultra quiet
- Lightweight for easier installation
- Horizontal duct option for space-saving installations
- Fits within a 290mm deep kitchen cupboard (V and B Models)
- Integrated digital controller for simple and accurate commissioning
- Plug and play controls; Humidistat, Vent wise, Wireless Remote
- LS inputs (Light Switch)
- Volt-free inputs
- Self-diagnosis for simplified fault finding
- Adjustable delay On/delay Off time
- Automatic frost protection effective to -20°C

Additional information

- Dimensions (H x W x D): 550 x 550 x 285
- Weight 15kg
- Spigot size 125mm



Controller

Controllability

The Lo-Carbon Sentinel Kinetic has 3 fully adjustable speeds and a purge setting (maximum flow). On the front of the unit is a digital controller that can be used to pre-set the speeds to any required air-flow within the performance range.

Integral Humidity Sensor

The integral humidity sensor increases speed in proportion to relative humidity levels, saving energy and reducing noise. The sensor also reacts to small but rapid increases in humidity, even if the normal trigger threshold is not reached. This unique feature ensures adequate ventilation, even for the smallest wet room. The night-time relative humidity setback feature suppresses nuisance tripping as humidity gradually increases with falling temperature.

Wired Controller

The Kinetic Wired Remote Controller has a backlit LCD user interface and duplicates all the functions of the onboard controller allowing the unit to be commissioned, controlled, and monitored remotely.

The controller is supplied with 15 metres of four core cable fitted with an RJ11 plug for fitting to the Kinetic control PCB.

Functions include:

- Ventilation speed control.
- Min/max ventilation control/set point
- BMS input/output interfaces- control and status indication
- Heating interlocks
- Volt Free contacts
- Fully automatic summer bypass facility
- Fan failure or component failure indicated via individual fault code display
- Automatic frost protection effective to -20°C
- Filter clean/change indication



Semi Rigid Ducting System

75mm OR 90mm radial ducting now available! A quick and easy to fit system of flexible ducting that can result in up to **70% time saving during the on-site installation** process, compared to rigid or spiral duct methods. This innovative system uses low resistance, smooth bore tubing to individually connect each room to the heat recovery unit via an air Distribution box (manifold), and is now recognized as an input to Standard Assessment Procedure (**SAP**) via **Appendix Q**. By directly connecting each inlet/outlet there is **zero leakage**, so no loss of valuable regained warm air. Also, the bore of the duct is coated with **anti-static coating** ensuring hygienic conditions and easy to clean simply by purging with a high-pressure vacuum cleaner. By direct connection to the air distribution box, **noise transmission between rooms** is greatly reduced compared to flat duct systems with numerous branches and tee joints. Requiring limited space, **the 75mm OR 90mm radial ducting** can be fitted in narrow joists due to its high crushability and can be run in concrete screeds for a permanent installation that will never degrade. **Available in 75 & 90mm diameter** (63mm & 76mm ID) bore size, with a choice of air distribution boxes and termination ceiling adapters.



PERFORMANCE

- Zero leakage ensures performance – no loss of valuable regained air
- High crushability ($S = 16 \text{ kN/m}^2$) with stands external pressure to EN ISO 9969
- Low resistance pipe compared to flexible ducting with relatively constant volume
- Superior flow characteristics. High efficiency by connecting each room individually
- Very low noise transmission between rooms
- Recognised as an input to Standard Assessment Procedure (SAP) via Appendix Q.

HYGIENE

- Smooth 75mm diameter bore for easy cleaning
- Anti-static coating prevents dust build up reducing dust traps
- Corrosion and abrasion resistant to avoid scale build up
- No evaporation of harmful substances – toxically safe
- Easily accessible from extract terminals and plenum boxes – easy to inspect and blow through with a commercial vacuum cleaner

SYSTEM

- Zero leakage system satisfies compliance and offers reduced labour costs to install
- Cost effective with low maintenance and long life
- Offers freedom of design with choice of different components to suit any layout
- Flexibility of the system allows for majority of ducting to sit inside loft insulation – reducing the cost of insulating the ducting

Optional extras

- **Installation** is a high standard service we provide with our own engineers that involves them being on site to complete the installation of the Heat Recovery system. The installation is completed in two stages, first fix and second fix. Once the Installation is complete to a professional standard then a commissioning service follows and will answer any questions you may have regarding the products/operating them and the maintenance requirements.
- **Site Support** is an on - site training session that includes a member of our installation team to attend your site for the day to assist and offer on- site training to your own installers, i.e.: plumbers/builders and electricians etc...
 - This will include the checking of materials against the bill of materials and sorting them out into an organized manor
 - Explanation and purpose of each component.
 - A walk around site with a design layout drawing to ensure the ease of installation and explain the layout and duct runs and the location and mounting of the unit.
 - Assisting in the initial fitting of the ducting runs, involving a demonstration and explanation to your installers.
 - Further explanation in regard to the plumbing and electrical requirements.
 - Explanation of fitting the register mounting frames and registers as required for second fix.
 - Answering any queries, hand- over of site support installation information pack.

This is not a full installation service; its purpose is to *support* and *assist* your own installers and get your project off to a flying start!

- **Commissioning service** involves a member of our engineering team to attend your site/home to adjust and commission your heat recovery system and ensure that the units are fully operational and the maintenance is fully understood.

A full report will be signed and issued and will also detail and works that need to be completed along with a certificate to pass on to your building control, together with a full user guide.



Case Studies



MARK HEAT RECOVERY SYSTEMS
INVESTMENT IN YOUR AIR QUALITY

Design | Supply | Installation |
Commissioning | Site Support

CALL TODAY: 07547163939
EMAIL: info@markheatrecoverysystems.co.uk
WEBSITE: www.markheatrecoverysystems.co.uk



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To view more case studies, please follow click [here](#)

Project Summary

Mark Heat Recovery Systems has designed this quotation for **Nav** who is developing a **x3 flats storey property in Leamington Spa** looking to install a mechanical heat recovery ventilation system for the whole house.

Fundamentally the result of the heat recovery system needs to be kept simple beneficial, cost effective and space efficient. The system will also deliver high levels of ventilation throughout the property **It exceeds the current Building Regulations - Approved Document F – Ventilation 2010 edition and complies with the older (and better) 1995 edition and therefore** no noisy extractor fans or draughty trickle ventilators in windows are required.

75mm OR 90mm Radial Duct Work - A quick and easy to fit system of flexible ducting that can result in up to 70% time saving during the on-site installation process, compared to rigid or spiral duct methods.

This innovative system uses low resistance, smooth bore tubing to individually connect each room to the heat recovery unit via an Air Distribution box, and is now recognized as an input to Standard Assessment Procedure (SAP) via Appendix Q.

By directly connecting each inlet/outlet there is zero leakage, so no loss of valuable regained warm air. Also the bore of the duct is coated with anti-static coating ensuring hygienic conditions and easy to clean simply by purging with a high pressure vacuum cleaner.

By direct connection to the air distribution box, noise transmission between rooms is greatly reduced compared to flat duct systems with numerous branches and tee joints.

Requiring limited space, Airflex Pro can be fitted in narrow joists due to its high crushability and can be run in concrete screeds for a permanent installation that will never degrade.

Available in 75mm OR 90mm diameter (63mm / 76mm ID) bore size, with a choice of air distribution boxes and termination ceiling adapters.



Quotation

MW – 06478

FLAT 1, 2 & 3

11/03/2024

Our offer includes the supply of a Vent Axia Heat Recovery Ventilation System's and all the associated ductwork and fittings.

Site Address = 1 Augusta Place, Leamington Spa. CV32 5EL

Heat Recovery Ventilation System: - **3 x Vent Axia - Sentinel Kinetic® BH -**

Materials Supply ONLY

£6,495

*Including insulated ventilation unit with large counter flow heat exchanger, automatic summer bypass, supply and exhaust EC fans, standard G3 supply filter and G3 extract filter. Galvanised spiral ducting to externals and to manifold boxes, with **75mm OD** radial ducting system – **x8 rolls semi-rigid anti-static ducting (50mtrs)**, with **x6** distribution manifolds **x18** ceiling/wall outlet boxes and including all necessary "safe seal" fittings; **x10** supply and **x8** exhaust white (RAL 9010) steel registers, **x6** circular straight low-profile silencers, galvanised inlet & discharge external grilles (**Roof vents are additional**), standard controller included with 15meter 4 core cable*

Optional Extras:

- | | |
|---|---------------|
| 1) <u>Installation</u> – (Including FREE commissioning / balance of system)
<i>(ALL INSTLLATION WORK IS CARRIED OUT BY OUR IN-HOUSE INSTALLATION TEAM THAT ARE NICEIC APPROVED, NO WORK IS SUBCONTRACTED OUT VIA A 3RD PARTY.)</i> | £4,595 |
| 2) <u>Commissioning ONLY</u> – ("Part F" Certification given on completion) | £595 |
| 3) <u>Site Support</u> - One-day technical site support (Training Day) | £595 |

Conditions:

The supply quotation includes a generous quantity of 75mm OR 90mm pipe and fittings (in accordance with our specification at quotation) however, extra pro pipe and fittings may be required if the most direct routes are not taken on installation but excludes installation and VAT. Alterations to plans after the date of the quotation may also result in changes to price. Delivery is within 5-7 working days from date of the order and payment received. These prices exclude any fire dampers, change of specification on ducting, condensate drains, and delivery to site. The quotation is valid for 3 months from the date of this quotation. Our prices are based on your floor plans submitted. (If there are any changes to this layout, we may have to recalculate the final contract price). The despatch period is subject to the condition that the official order and payment, together with all contractual documents, have been received and accepted by Mark Heat Recovery Systems – currently 5-7 working days. This quotation is subject to our standard conditions of sale and maybe withdrawn, cancelled, or varied by the seller at anytime. All heat recovery systems are covered by warranty for 5 years.

Mark Heat Recovery Systems - Terms and Conditions

General Terms:

1. Unless specifically stated on the attached correspondence the following terms apply.
2. Prices on quotes exclude VAT and are valid for 3 months from quote date but a 25% deposit will secure the price for 6 months, upon which purchaser becomes liable for any price increases.
3. All goods supplied remain Mark Heat Recovery Systems sole and absolute property both in law and equity until paid for in full.
4. The client must notify Mark Heat Recovery Systems of any fire-rated walls or barriers within the property, as fire dampers must be fitted where ducting penetrates them. If required, they will be added to the system price and included in the materials design. It is the responsibility of the purchaser/client to ensure that the dampers are fitted as specified if purchased on a supply – only basis.
5. Full details of warranties are available on request.
6. Purchaser to locate ventilation appliance on a flat solid surface, angle of slope dependent on the appliance specified. Any plinths or bespoke housings must be supplied by the client/purchaser.
7. Risk passes to the client/purchaser upon delivery and the client is advised to ensure the appliance is stored safely and all goods are covered by insurance.

System Design

8. The total price includes one full system design.
9. Further amendments or visits maybe chargeable at the discretion of Mark Heat Recovery Systems at a rate of:
 - a) Design work at £99 plus VAT.
 - b) Survey/site visit £195 - £250/visit plus VAT depending on location.
10. The price does not include 'setting out' information, which would normally be provided by the architect. Setting-out information for ventilation drawings can be provided by Mark Heat Recovery Systems at a rate of £40/hour plus VAT.

Delivery of Materials

11. Delivery (on supply only) or installation must be completed within 6 months of written order confirmation, upon which the purchaser becomes liable for any price increases.
12. All orders are typically delivered to site via third party courier. It is the purchaser/client's responsibility to ensure that the delivery address is manned, to sign, accept, unload and store the delivery prior to installation
13. Purchaser/client must ensure sufficient persons and handling equipment are present on site to unload and position the ventilation appliance which can weigh up to 175kg. If you require Mark Heat Recovery Systems to provide lifting equipment this can be arranged at an additional cost. Price on application.
14. All materials shortages, errors or damage must be reported within 2 days of delivery, after which Mark Heat Recovery Systems will no longer accept liability or responsibility.

Supply Only Terms

15. Please allow 3-5 working days delivery for the ducting / fittings / ventilation unit / accessories.
16. Payment:
 - a. 50% payment is due upon receipt of order to enable a detailed design of system and material call-off to be prepared. The total order value will be fixed for 6 months from date of signature. Any price changes will be confirmed in writing, giving 30 days' notice of such changes.
17. Unless specifically confirmed in the order confirmation, a supply only ventilation system does not include system commissioning, a price for which, is available upon request.

Exclusions otherwise not mentioned:

18. Condensates drain materials.
19. Electrical control labeling or power source cabling.
20. Connection materials for any connection to plumbing system/foul drainage.
21. Connection materials for any connection to the wet heating system required for the water coil after heater coil and controls.
22. Connection materials for any connection to the ground source or air source heat pump required for the chilled water cooling coil and controls.

Installation Terms

27. Unless otherwise stated on attached document, installation charges assume the project is available for one – interrupted visit on existing homes or two visits (1st fix and 2nd fix) for new-build or renovation projects.
 28. Any additional site visits caused by delays to the build project or obstruction by actions of other trades or for reasons outside the control of Mark Heat Recovery Systems will be charged for at the standard daily rate. Details available on request.
 29. The ventilation appliance shall be installed on 2nd fix, unless otherwise specifically agreed.
 30. Any changes to agreed ducting or terminal locations will be deemed as out of scope of the original quotation and Mark Heat Recovery System reserves the right to levy a charge equivalent to our standard daily rate or 1/8th of the standard daily rate for each hour spent on site as a result of variation to the original agreement. Variation work will only commence on receipt of a signed written order.
 31. The price quoted includes drilling of light-duty block or wood which would accommodate ducting/piping routes and terminal positions, but excludes drilling or chasing of other materials, as detailed in 41-42 below.
 32. Mark Heat Recovery Systems will not be subject to any development or developer – specific retention clauses. The installation and commissioning sign off sheets will be our guarantee and confirms the completion of the order.
 33. Payment in three instalments:
 - a) Prior to commencement of 1st fix works 50%
 - b) Completion of 1st fix work 40%
 - c) Completion of 2nd fix & commissioning works final 10%
 34. Only new build installed prices attract zero – rated VAT
 35. A reduced rate of VAT will only be applied upon receipt of written evidence authorized by a suitable authority.
 36. Payments must be received 5 working days prior to any agreed installation date to avoid rescheduling unless otherwise expressly agreed.
 37. Mark Heat Recovery Systems requires 20 working days' notice to attend site to undertake any works.
- The Purchaser/Client undertakes to:**
38. Provide a quality plumber to install a FROST-FREE condensate drain to be connected to the appliance. The drain pipe must be 22mm in diameter and be located 150mm below the condensate outlet on the appliance to accommodate the correct connection between the drain and the appliance.
 39. Provide mains cabling and connect the ventilation unit to a power source.
 40. Provide controller cabling and connection between the ventilation appliance and the control panel / Humidistats.
 41. Drill holes in the exterior walls, prepare roof tiles/slates for the roof terminals or the soffit boarding for the soffit grilles as specified on the design layout drawing, of the property to accommodate the intake and exhaust vents.
 42. Provide a suitably qualified person to perform drilling or chasing of brick, reinforced block, concrete, or screed. Mark Heat Recovery will endeavor to liaise with site manager and other trades whilst on site, to have any drilling/chasing complete and to ensure the installation is completed and to ensure the installation is completed as smoothly and efficiently as possible.
 43. Provide a qualified plumber to connect water coil to the existing wet heating system.
 44. Construct any unit mounting plates or brackets if required.
 45. Fit exterior vents and grills if working height is over 2.5m.
 46. Fit roof terminals if required.
 47. Box in ducting if required.
 48. Make-good in a retrofit installation. (Mark Heat Recovery Systems shall minimize any disruption to the decoration or existing structure of the property. This will be discussed with the client prior to commencement, or during works if necessary.)

Returns Policy:

49. Returns are not accepted where the materials have been supplied as part of a supply only kit in any circumstances.
 50. Where additional materials have been purchased these items can be returned carriage paid and are subject to a 20% Restocking fee, a list of materials needs to be forwarded to Mark Heat Recovery Systems to agree the value of the proposed returned goods **BEFORE** they are sent back.
 51. Should a ventilation appliance which has been ordered wants to be returned, agreement needs to be obtained from a Director before any return can be accepted. A restocking fee will be applicable for stock appliances however we reserve the right not to accept any returns for non-stock appliances.
 52. Faulty or damaged goods for credit must be returned directly to Mark Heat Recovery Systems post or carrier and full details including date and invoice number relating to the supply of the goods must be submitted with the goods. Under no circumstances can Mark Heat Recovery accept a claim for faulty goods where the goods are not available for inspection. Claims in respect of alleged faulty goods shall not be a ground for withholding payments due to Mark Heat Recovery Systems.
- Force Majeure**
53. Mark Heat Recovery Systems will not be liable for any loss or consequential liability or damage sustained by the buyer by reason of act of God, war, fire, strike, lock out, government control or regulation, abnormal weather conditions, accident, breakdown or any other circumstances beyond Mark Heat Recovery control.