Sustainably focused product range

The Howarth Green House thinking sustainability

The Howarth Green House

Thinking sustainability

The Howarth GreenHouse combines the latest renewable technology and products with industry leading knowledge, service and support




One of the few dedicated centres of its type in the North West, The Howarth GreenHouse works alongside some of the world's foremost manufacturers of sustainable solutions.

Our range consists of the latest energy saving innovations, including solar thermal, solar photovoltaics, air/ground source heat pumps, biomass boilers, mechanical ventilation heat recovery, external wall insulation and voltage optimisation, amongst others.

To complete the picture we also offer fully certified supply and fit of air/ground source heat pumps, biomass, solar photovoltaics, solar thermal, mechanical ventilation heat recovery and underfloor heating through our installer network.

Visit **www.howarth-timber.co.uk** for more details on our extensive selection of products and services.

STAGE ONE

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Drainage & Water Management

Explanation of the section, working with key suppliers... etc etc.

STAGE TWO

XX - XX
Floor, Roof & Wall Construction

Explanation of the section, working with key suppliers... etc etc.

STAGE THREE

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Lighting

Explanation of the section, working with key suppliers... etc etc.

STAGE FOUR

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Energy & Renewables

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STAGE SIX

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Heating & Ventilation

Explanation of the section, working with key suppliers... etc etc.

The Howarth Green House

GreenHouse Compliance offers a hassle free, fixed cost solution that will help you fully meet the requirements of the Building Regulations and the Government's sustainability requirements.

GreenHouse Compliance has been developed to provide the house builder and developer with essential information on the latest Building Regulations and planning changes as the Government implements its sustainability agenda, giving you an integrated, cost effective solution for compliance.

Bringing all the issues together into one cost-effective package enables the developer to concentrate on the design and build of the property; while GreenHouse Compliance ensures that the process of meeting Building Regulations is a smooth and hassle free process.

Residential Development services

- **Air Tightness & Acoustic Testing**
- **SAP Energy Assessments**
- **Building Control**
- **Code for Sustainable Homes Assessments**
- **Ecology & Flood Risk Assessments**
- **Compliance Advice**

Commercial Development services

- **Building Control; plans approval, inspections and certification**
- **BRUKL SBEM Assessments – design and as built assessments**
- **Energy Performance Certificates**
- **Air Tightness & Acoustic Testing**
- **BREEAM Sustainability Assessments (retail, offices, industrial, multi-residential & other buildings)**

Call us today
0330 119 2529

The Howarth Green House

1. Drainage & Water Management

Drainage and water management is a very important consideration in today's climate. Ever increasing development and changing weather conditions mean that the need for surface water drainage is critical. Not to mention our great range of water saving products such as low flow taps, showers and toilets, as well as low capacity baths alongside our standard ranges.

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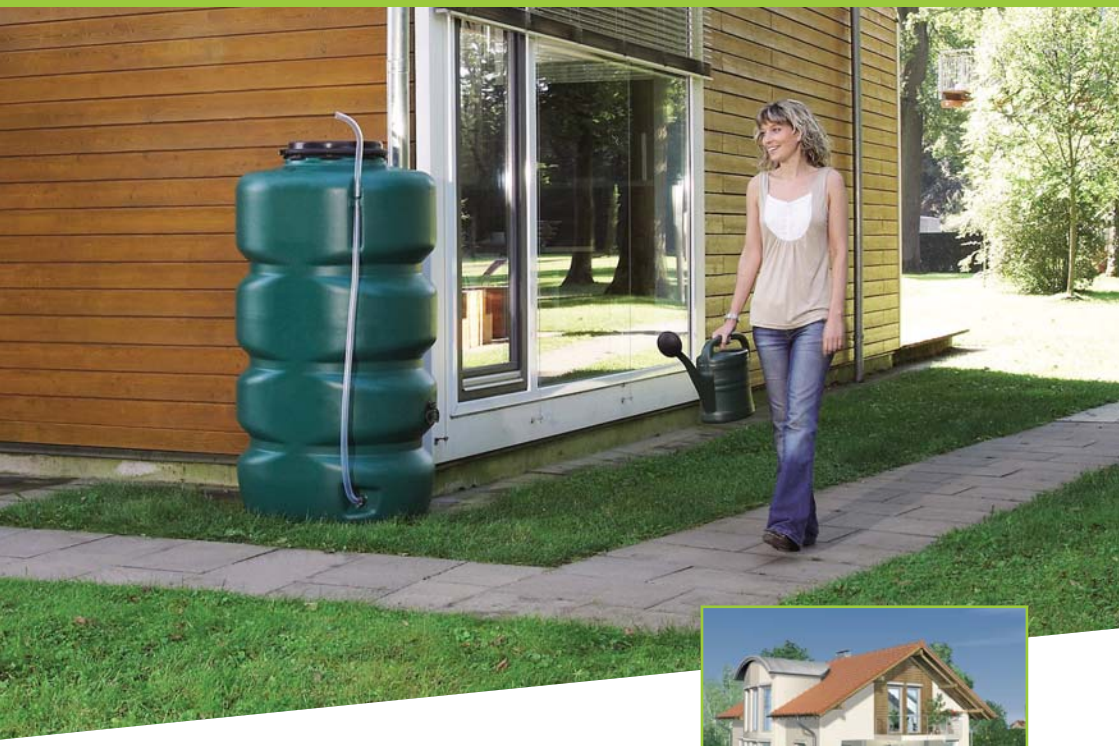
Rainwater Harvesters



In the home, the average person uses 150 litres of water every day. Around 50% is not required to be mains water quality. A rainwater harvester works by collecting the water that falls on your roof, this water is then channelled down through the guttering and pipework into a tank, usually located underground.

Features

- Can be buried under ground, wall mounted or enclosed in the roof to suit most environments
- Utilises rainwater collected from the roof
- Advanced systems available, making the system more user friendly
- Simple operation
- Easy installation

Benefits

- Reduces your mains water usage, saving you money
- The stored water can be used in your washing machines and toilets, for watering the garden and washing cars.
- Can help protect against flooding risks
- Can increase the value of your property

images to follow

This type of paving reduces the amount of surface water that driveways dissipate into drainage systems as its structure allows water to percolate through into the sub base below and away into natural water courses.

Features

- Permeable sub base designed specifically to accommodate water
- Range similar to conventional block paving
- Familiar block sizes
- Can prevent pollution of drainage systems
- Can be used to direct water to flower beds or natural water courses

Benefits

- Reduces surface run-off and pooling which usually forms due to current driveways being impermeable.
- Can help prevent flooding.
- No need for planning permission as long as the correct sub-base is installed.
- Can water gardens/flower beds naturally.

Grassguard

images to follow

Grassguard Permeable Paving can be used to create a sustainable car parking area or to extend an existing driveway without obtaining planning permission.

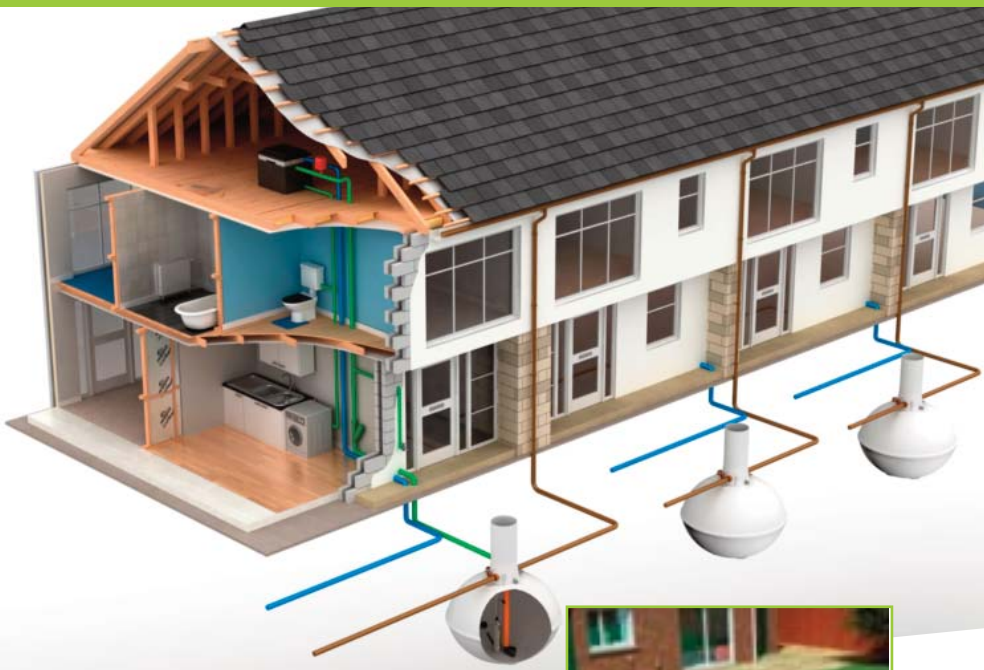
Grassguard provides an additional car parking space, whilst retaining the environmental benefit of a natural grassed area.

Features

- Seeded with coarse Rye grass.
- Allows grass to grow through blocks.
- Lightweight.
- Easy to install.

Benefits

- Allows rainfall to drain away in a sustainable and environmentally friendly way.
- Do not need planning permission to install.
- Can help prevent flooding as water can percolate through into the soil through the gaps in the paving.
- Can reduce the risk of potholes, rutting or grass damage.
- Rye grass binds slabs and base, improving structural strength and loadbearing.



For domestic dwellings not connected to mains drainage a Sewage Treatment Plant provides a reliable, efficient and environmentally safe solution to your sewage disposal needs. These units are ideal for locations where septic tanks will not meet the required standards.

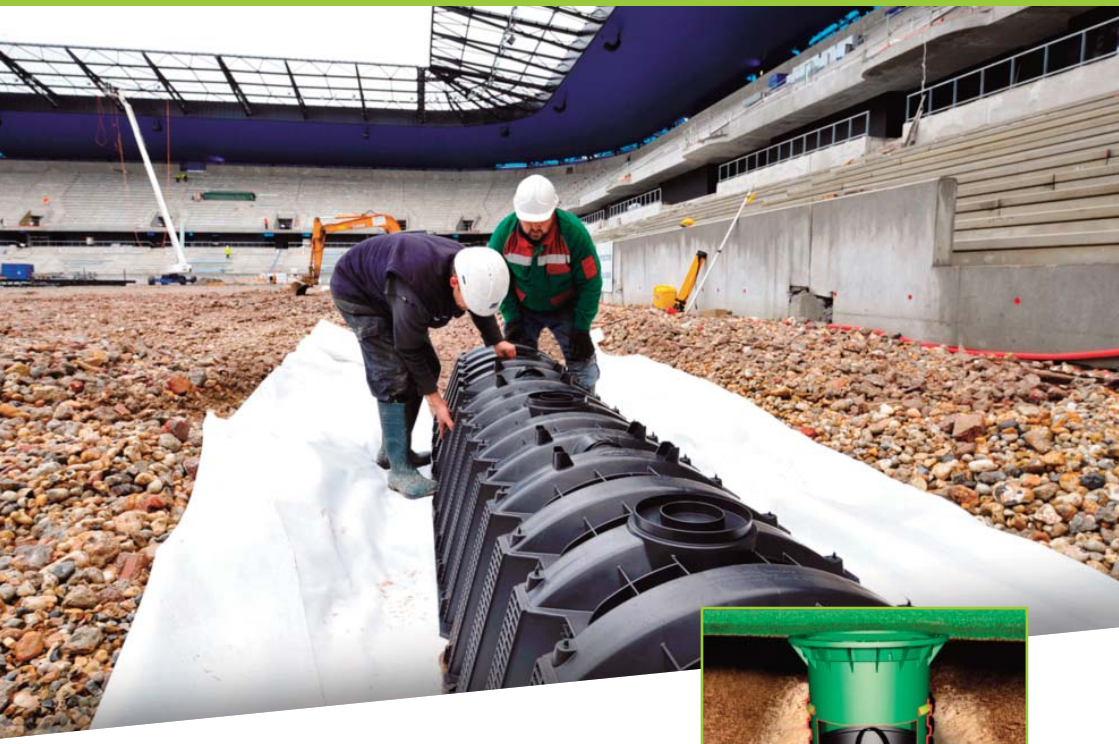
Features

- Low running costs
- No odours
- No noise
- Large storage capacity
- Legislation-compliant solutions

Benefits

- Environmentally friendly
- Simple to install
- Low maintenance and running costs
- Provides a solution to sewage needs
- Range of solutions available

Storm/Rainwater Attenuation



An attenuation system works when the peak inflow rate in a storm exceeds the allowed discharge into the watercourse. The excess flow has to be 'attenuated' by storing the water on the site for the duration of the storm. This is then released at, or less than, the allowed discharge rate after the storm.

Features

- Robust design and materials
- Easy to install
- Large capacity
- Large range to suit both domestic and industrial needs

Benefits

- Easy to install
- Can be linked with separators, pump stations etc.
- Low maintenance
- Provides a cost effective solution to attenuation needs

If you need a solution but aren't sure about your options, ask about our free specification and design service'

images to follow

Green roofs are constructed using low maintenance planting. The Sedums (succulents) and indigenous herbs and grasses that grow on these types of roofs provide excellent cover and protection to the waterproofing system.

Features

- Relatively easy install
- Aesthetically pleasing
- Can improve thermal performance
- Reduces overheating in summer months

Benefits

- Reduced storm water run-off
- Can help prevent flooding
- Better acoustic performance
- Can reduce energy bills
- Improved ambient air quality
- Increased life expectancy of waterproofing

Biodiversity Roofs

images to follow

Biodiversity roofs are another form of green roof that makes use of recycled materials (e.g. crushed brick, crushed concrete etc.) in the growing medium. This type of green roof is intended to create a natural wasteland and can be seeded initially with selected species to create growth.

Features

- Relatively easy install.
- Aesthetically pleasing.
- Can improve thermal performance.
- Low maintenance.

Benefits

- Reduced storm water run-off.
- Can help prevent flooding.
- Better acoustic performance.
- Can reduce energy bills.
- Improved ambient air quality.
- Increased life expectancy of waterproofing.

images to follow

note added:
This page potentially needs moving to the latter end of the brochure

TBC please

Water consumption in domestic properties can be reduced by up to 25% through the use of water saving taps and showers, low capacity baths, low flush toilets and flow restrictors which can result in lower water bills for the householder.

The Howarth Greenhouse can advise on solutions for your project and supply many water saving products through our by industry leading manufacturers.

Features

- Solutions for retrofit projects
- Solutions for new-installation projects
- Reduces capacities of toilets and baths
- Reduces flow rates of Taps

Benefits

- Can help reduce household water consumption
- Can help reduce household water bills
- Can recover heat from waste water

The Howarth Green House

2. Floor, Roof & Wall Construction

The best way to reduce our Carbon Emissions and increase the energy efficiency of buildings is to improve the structural fabric of the build, i.e. the floors, roofs and walls.
The Howarth GreenHouse can offer advice and information on a range of different construction techniques which can result in a more energy efficient property. Coupled with our full suite of energy testing services, you are sure to find the most cost effective and compliant construction method to suit your projects.

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Timber & Timber Frame

Wood is the only 100% renewable building material. Howarth Timber has been timber trading since 1840 and has a wealth of experience in the industry.

Timber is effectively Carbon neutral and the most sustainable building material available. Timber frame constructions can utilise factory assembled wall panels, together with roof and floor panels.

Features

- Factory assembled
- Sustainable building material
- Excellent insulation properties
- Up to 30% faster than traditional construction methods
- Low waste
- Recyclable

Benefits

- Lower heating bills
- Environmentally friendly
- Less construction time = less costs

SIPS Panels

Structural insulated panels (SIPs) are a high performance building system for residential and light commercial construction. The panels consist of an insulating foam core sandwiched between two structural facings, typically oriented strand board (OSB).

Features

- Factory manufactured
- Eco friendly-timber from sustainable sources
- High strength to weight ratio
- Ozone Depletion Potential rating of zero
- Low Global Warming potential
- Versatile
- Less footprint than traditional build

Benefits

- Faster build time
- Can save money on time, labour and general site costs
- Better for environment than traditional
- Reduces waste
- Reduces embodied and transport energy
- More possibilites available
- May increase value of build due to more sellable floor space than traditional

Want to know more? 0330 119 2529

Blocks

The Howarth GreenHouse has a range of solutions which are manufactured from a range of different materials, coupled with their durability, time saving and contribution to a building's thermal mass makes them a good choice for sustainable construction projects.

Please contact us for more information on our range of sustainable blocks'

Ecologic Roof Tiles

images to follow

Ecologic is an innovative and unique concrete roof tile that actually absorbs NOx, and in doing so, improves air quality. Coupled to this, Ecologic roof tiles are manufactured using circa 50% recycled materials, making it one of the most environmentally beneficial and highly sustainable roofing products in the market today.

Features

- Made up of approx 50% recycled content
- Absorbs NOX gases and converts to soluble nitrates that wash away harmlessly with rainwater
- Good range of colours
- 'Good' rating under BES 6001 (Responsible Sourcing)

Benefits

- Environmentally friendly
- Can improve local air quality

STORVIK Double Glazed Windows

The STORVIK double glazed window range will allow you to meet the current demands of the BREEAM Code for sustainable homes and for the foreseeable future. They also provide advanced thermal efficiency reducing heat loss.

Features

- Increased thermal efficiency
- Quality laminated Redwood Nordic Pine construction
- Supplied fully finished
- Secured by Design locking system fitted as standard
- Available in various design, colour and size options
- Manufactured from FSC accredited timber
- Extensive guarantees
- BFRC A to C Rated
- BRE Green Guide A+ Rated
- Incorporating Swisspacer V, the leading warm edge spacer

Benefits

- Performance peace of mind
- Modern mechanism allows for easy cleaning and maintenance
- Low U-values to 1.2W/m^2k
- Can help retain heat and reduce energy bills

Want to know more? 0330 119 2529

STORVIK Triple Glazed Windows

Designed to meet the ever increasing drive for enhanced thermal performance, the triple glazed Storvik window has been designed using the highest quality materials available to achieve U values amongst the lowest in the market.

Features

- Increased thermal efficiency
- Quality laminated Redwood Nordic Pine construction
- Supplied fully finished
- Secured by Design locking system fitted as standard
- Available in various design, colour and size options
- Manufactured from FSC accredited timber
- Extensive guarantees
- BFRC A to C Rated
- BRE Green Guide A+ Rated
- Incorporating Swisspacer V, the leading warm edge spacer

Benefits

- Performance peace of mind
- Modern mechanism allows for easy cleaning and maintenance
- Low U-values to 0.8W/m^2k
- Can help retain heat and reduce energy bills

Want to know more? 0330 119 2529

Cladding

Howarth Timber & Building Supplies is wholly committed to supplying the highest quality, sustainable timber cladding products, including innovative solutions such as the ArborClad range. Working with industry leading manufacturers alongside their own specialist cladding manufacturing facilities.

Features

- Can save time and money on site
- Fast installation
- Thermal treated range offers enhanced durability and stability
- Suitable for a range of applications
- Performance peace of mind
- Aesthetically pleasing

Benefits

- Available in rustic, traditional and metal effect finishes
- No on-site finishing required
- Range of paint finishes available
- Environmentally focused
- End matched profiles
- Increased speed of installation
- Manufacturers paint warranty

Sun Tunnels

VELUX sun tunnel signals the end of dim and dismal spaces in the home. VELUX sun tunnels bring natural light into even the darkest and most isolated spaces through a specially designed tunnel from roof to ceiling.

Features

- Rigid or flexible
- Exterior flat glass appearance
- Easy to clean coating
- Easy installation
- Optional low energy lighting kit
- Decorative ceiling rings available

Benefits

- Using natural light
- May reduce electricity consumption
- May reduce electric bills
- Aesthetically pleasing
- Range to suit different applications

The Howarth Green House

3. Lighting

Using the correct lighting can drastically improve light levels and reduce energy bills. The lighting market is expanding rapidly with a huge choice of LED lamps available, even retrofit options are now available with a range of choices in colour, brightness, beam angle etc. Why not visit your local Howarth Timber to discuss your lighting options and potential savings you could make today!

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LED Lighting

Low energy, long life and versatile lamps available in a variety of different types. Compact in size, they offer enormous opportunities to provide excellent accent, display and colour lighting in both commercial and domestic applications. They will also save you money on your bills due to their low energy usage whilst typically lasting a lot longer than average halogen bulbs.

Features

- Long life
- Low energy usage
- Range of different colours
- Large range available
- Retrofit options available

Benefits

- Reduces electricity demand
- Can reduce electricity bills
- Little maintenance required
- Solutions suitable for most applications available

Commercial LED lighting page to follow.

The Howarth Green House

4. Energy & Renewables

Renewable technologies utilise a renewable source of energy such as water, solar power or the outside air, which does not deplete like fossil fuels. There are a number of different technologies that can be used, all available through your local Howarth Timber. We also offer a variety of energy saving technologies that are idea for both domestic and commercial use.

Call us on 0330 119 2529 for the latest tariff information

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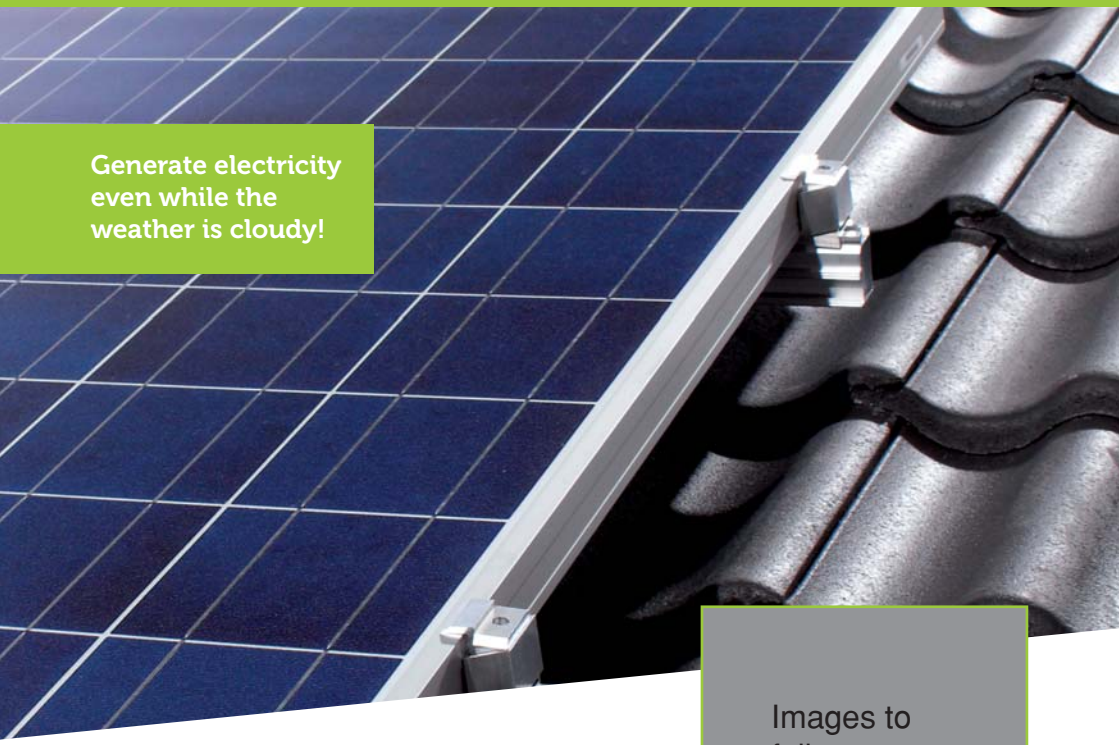
Solar Photovoltaics



Generate electricity even while the weather is cloudy!

Solar panel electricity systems, also known as solar photovoltaic's (PV), capture the sun's energy using photovoltaic cells. These cells don't need direct sunlight to work, they still generate electricity on a cloudy day, because the run off of solar radiation. The cells convert the sunlight into electricity, which can be used to run household appliances and lighting.

Images to follow

Images to follow

Features

- Takes up very little indoor space
- Low maintenance
- Can increase the value of your property (Sale or Rental)
- Costs next to nothing to run

Benefits

- Cuts your electricity bills: sunlight is free, so once you've paid for the initial installation your electricity costs will be reduced.
- Get paid for the electricity you generate: the government's Feed-In Tariffs pay you for the electricity you generate, even if you use it.

Solar Thermal

Heats water all year round, even in winter months.

Solar water heating systems use solar panels, called collectors that are fitted to your roof. These collect heat from the sun and use it to heat up water which is stored in a hot water cylinder. A boiler or immersion heater can be used as a backup to heat the water further to reach the temperature you want.

Images to follow

Images to follow

Features

- Low running costs.
- Low maintenance.
- Works all year round.
- Constant research and development providing efficient solar solutions.
- High efficiency solar pumps that reduce energy consumption.

Benefits

- Hot water throughout the year: the system works all year round, though you'll need to heat the water further with a boiler or immersion heater during the winter months. A typical system can provide up to 60% of your annual domestic hot water requirements.
- Cut your bills: sunlight is free, so once you've paid for the initial installation your hot water costs will be reduced.
- Cut your carbon footprint: solar hot water is a green, renewable heating system and can reduce your carbon dioxide emissions.

Want to know more? 0330 119 2529

Air Source Heat Pump

Operates at up to 300% efficiency.

Air source heat pumps absorb heat from the outside air. This heat can then be used to heat radiators, underfloor heating systems, or warm air convectors and hot water in your home. It can get heat from the air even when the temperature is as low as -15° C.

Features

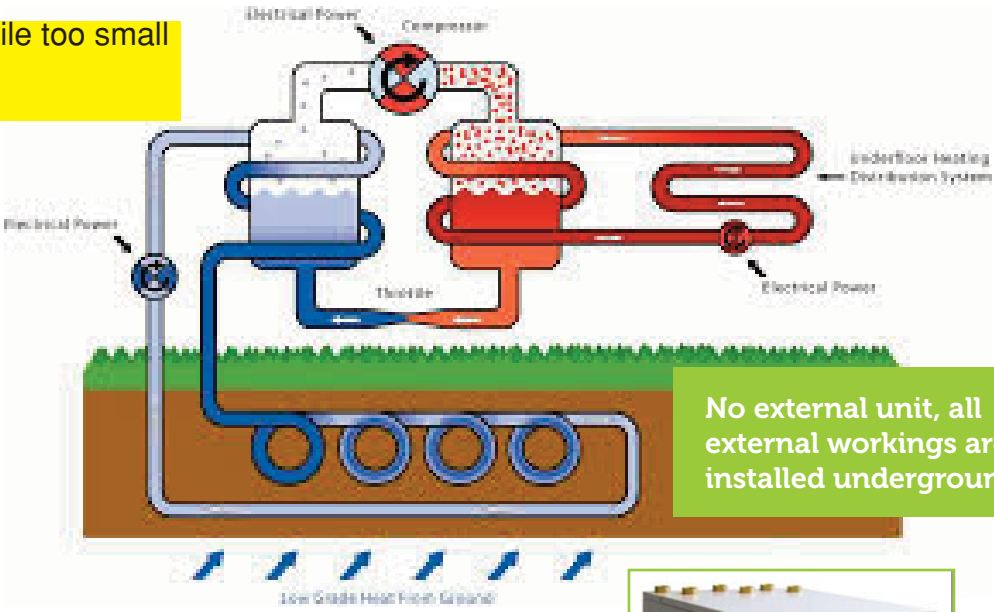
- No fuel needed – Run's off of the outside air
- Need little maintenance, 'fit and forget' technology
- Efficient running costs
- Can wholly replace a conventional boiler based system

Benefits

- Lowers your fuel bills, especially if you are replacing conventional electric heating.
- Provide you with an income through the government's Renewable Heat Incentive (RHI).
- Lowers your home's carbon emissions.
- Can heat your home and provide hot water.
- Easier to install than a ground source heat pump, though efficiencies may be lower.

Ground Source Heat Pumps

File too small



No external unit, all external workings are installed underground.

Ground Source Heat Pumps use the thermal energy stored in the ground to provide heating and hot water for your home. This energy is freely available and formed from solar energy which heats the ground, it is then converted for use in a heating system. In fact, up to 75% of the energy needed by the heating system is extracted from the environment!

Features

- Can completely replace conventional heating systems
- Low running costs
- Needs little maintenance
- Heats your home and provides hot water

Benefits

- Renewable energy source, freely available.
- Lower fuel bills, especially if you are replacing a conventional electric heating system.
- Can provide you with an income through the government's Renewable Heat Incentive (RHI).
- Lower your home's carbon emissions, depending on which fuel you are replacing.

Biomass Boilers

Images to follow

Biomass boilers burn wood pellets, chips or logs to provide warmth for a single room or to power central heating and hot water boilers. A stove burns logs or pellets to heat a single room and may be fitted with a back boiler to provide water heating as well. A biomass boiler could save you on average nearly £600 a year compared to electric heating.

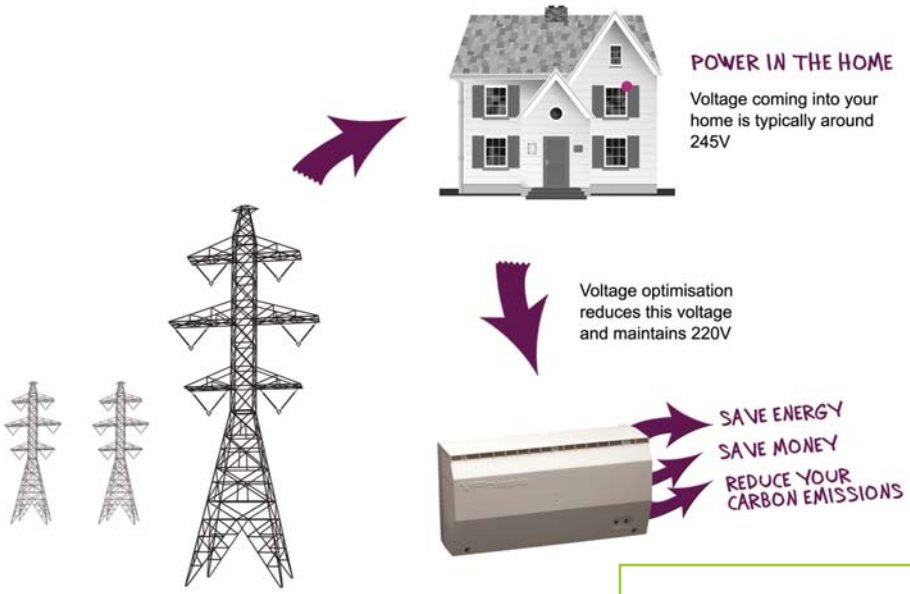
Features

- Fully automatic, biomass boilers are sophisticated and behave more like an oil or gas boiler, using advanced controls which regulate the amount of fuel being delivered to the burner to match demands
- Minimal maintenance, required to clean just once per year, under normal running conditions
- Up to 97% efficiency

Benefits

- Affordable heating fuel: although the price of wood fuel varies considerably, it is often cheaper than other heating options.
- Financial support: wood fuel boiler systems benefit from the Renewable Heat Incentive (RHI)
- A low-carbon option: the carbon dioxide emitted when wood is burned is the same amount that was absorbed over the months and years that the plant was growing. The process is sustainable as long as new plants continue to grow in place of those used for fuel.

Domestic Voltage Optimisation



Images to follow

Fitting a voltage optimisation unit can improve the overall energy efficiency of your home. Voltage Optimisation will work throughout the day to lower and regulate the voltage coming in to your house, resulting in reduced energy consumption, fewer carbon emissions and lower electricity bills.

Features

- Increases the efficiency of Solar PV and other renewables
- Increases life expectancy of appliances and other renewables
- Improves power factor, removes harmonics and provides voltage phase balancing (Power quality)
- Low Maintenance

Benefits

- Reduces maximum load for your household appliances and in return cuts electricity bills.
- Reduces CO2 emissions
- No moving parts
- Last up to 20 years

The Howarth Green House

5. Insulation

Insulation comes in various forms and applications, which all achieve a similar goal. Insulation is designed to keep the warm air in your house and keep the cold air out. Having insulation installed in your home has other benefits too such as:

Decreasing the likelihood that mould and condensation will form inside your home

Reducing or eliminating damp spots within the home and the home's internal structure

Increased heating efficiency due to the reduced loss of heat through the walls

There are three main types of insulation; External, Internal and Cavity Wall. Each application is best suited to different situations and different end-users. All are suitable for retro-fit, though retrofitted internal wall insulation may cause some disruption in the home.

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External Wall Insulation

External wall insulation involves fixing a layer of insulation material to the exterior wall, then covering it with a special type of render (plasterwork) or cladding. The finish can be smooth, textured, painted, tiled, panelled, pebble-dashed, or finished with brick slips.

Features

- Low maintenance
- Thicker or higher performing insulation can be used resulting in warmer walls.
- An exterior finish is developed which can often closely match the original or surrounding properties
- No internal redecoration is required, particularly kitchens and bathrooms

Benefits

- Reduces your heating bills and carbon footprint.
- No internal living space is lost as all the insulation is on the outside walls.
- No need to vacate the house whilst works takes place and no need to move furniture and fittings.
- The risk of condensation and cold- bridging is eliminated as the whole building is wrapped in insulation.

Internal Wall Insulation

Images to follow

Internal wall insulation is done by fitting rigid insulation boards to the wall, or by building a stud wall filled in with mineral wool fibre. The following points discuss the advantages and disadvantages of having internal wall insulation.

Features

- Installation is disruptive, but can be done room by room.
- Internal condensation issues are eliminated.
- Improved acoustic properties for noise reduction from the outside world.
- Offers a 'blank canvass' for redecoration

Benefits

- Generally cheaper to install than external wall insulation.
- Improved insulation levels lead to a reduction in heat loss and, therefore, to a reduced energy demand for heating in the winter months.
- Higher levels of insulation help to reduce building overheating in the summer months, thereby reducing the energy demand for cooling.

Disadvantages

- Slightly reduces the floor area of any rooms in which it is applied (the thickness of the insulation is around 100mm).
- Makes it hard to fix heavy items to inside walls – although special fixings are available.
- Problems with penetrating or rising damp need to be fixed first.
- Requires skirting boards, door frames and external fittings to be removed and reattached.

Want to know more? 0330 119 2529

Sheep's Wool Insulation

Sheep's wool insulation can be used as an alternative to conventional insulation in walls, floor and roof.

Features

- Natural and sustainable
- Breathable
- Odourless
- Free from harmful chemicals

Benefits

- Easy to use and handle
- Safe to handle
- Helps to reduce CO_2 emissions
- Can help to improve the acoustic qualities of your home

Wood Fibre Insulation

Wood Fibre Insulation is an alternative option to standard wall, roof and floor thermal insulation and is supplied in the form of vapour-permeable boards. They can be used as part of an integrated system for external walls of masonry or timber construction.

Features

- Breathable – can help to regulate humidity in the building
- Can provide protection against airborne and impact noise
- May help with the air tightness of the building

Benefits

- Energy saving - prevents heat loss in winter
- Sustainable and environmentally friendly
- Use of selected materials and natural, raw materials help to ensure good air quality inside the building

The Howarth Green House

6. Heating & Ventilation

The source of your heating is just as important as the way you distribute it which is why we offer a number of different heating options for in the home. We also offer a variety of ventilation options to keep the air in your house fresh and dry.

Conventional radiators are very inefficient and can cause hot and cold spots in a room. Our efficient alternatives are designed to overcome these problems and to stand alongside renewable technologies such as Air Source Heat Pumps and Solar Thermal Collectors.

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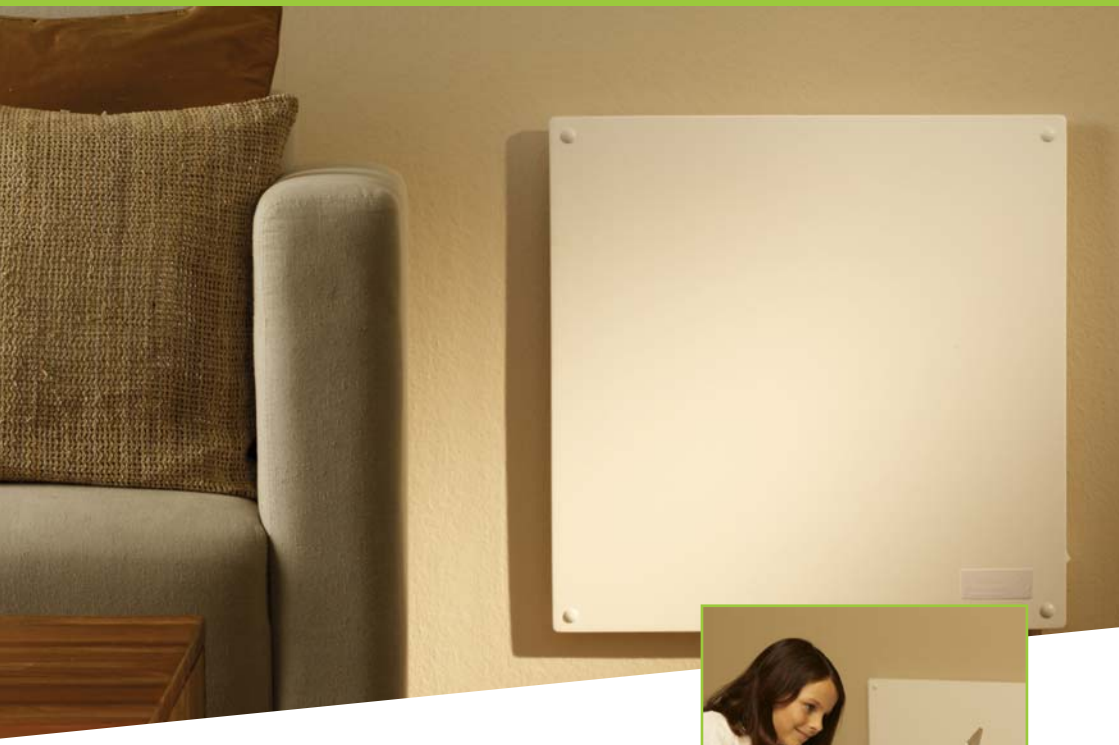
Panel Heaters



Panel heaters provide an energy saving, electrically powered alternative that can save money on your bills. This heater has already been a major success in Europe, USA, Australia and South Africa and this unique product is now available in the UK.

Features

- Only 60mm deep (77mm including wall fixings)
- Paintable finish to match the rest of the room
- Durable aluminium construction
- Easy to install on hard or soft walls
- Can save up to 50% on energy bills compared to conventional electric heaters

Benefits

- One of the slimmest panel radiators on the market.
- Highly accurate electronic thermostat within 0.5°C.
- Silent operation
- Digital control programming to personalise the settings

Underfloor Heating

Underfloor Heating offers a heating alternative to radiators in bathrooms, kitchens, or an entire house. It provides a more even spread of heat in rooms than conventional radiators and can also be linked up to other renewable technologies like air source and ground source heat pumps.

Goes hand in hand with lower flow temperatures associated with renewable energy sources

Features

- A wide range of products available, designed with specifers, installer and end-users in mind
- Straightforward installation and long term performance benefits
- Low maintenance
- Underfloor heating prevents cold spots developing in a room which is characteristic of current radiator systems

Benefits

- Cost to run an underfloor heating system is 15-40% less than a conventional radiator system
- Underfloor heating systems are cheaper to install than standard radiator system in a new build
- Space saving, no need to give up wall space to unsightly radiators
- Underfloor heating helps to reduce house dust mites as the moisture content is too low to allow dust mites to live, giving asthma sufferers a much better living environment

Want to know more? 0330 119 2529

Thermaskirt

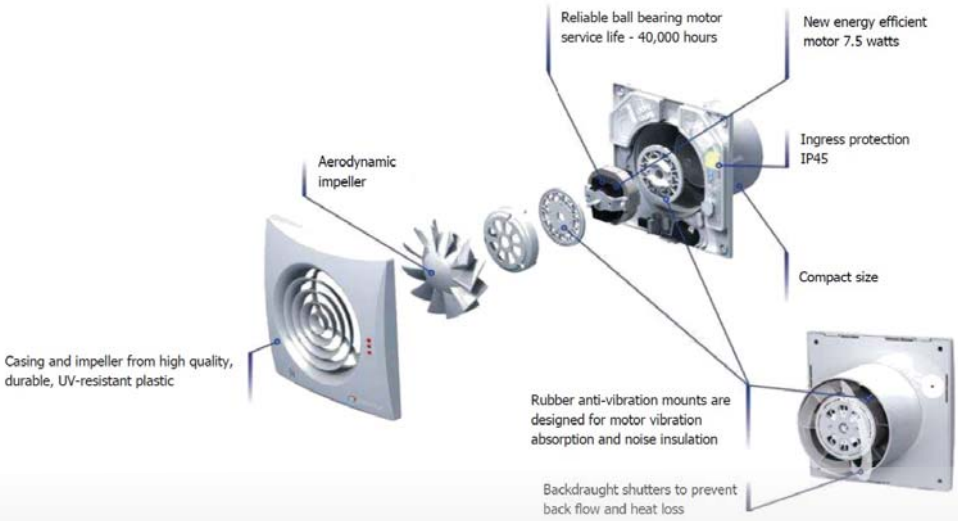
Thermaskirt is a true radiant heating solution similar to underfloor heating but without any of the hassle. Thermaskirt is available in a range of profiles, finishes and colours which replace both your skirting board and conventional radiators. Thermaskirt is easy to install and works with conventional boilers and renewable heat sources alike. Suitable for retrofit, new build and extension work. Manufactured in the UK & tested to European Standards EN442-1.

Features

- Safe & Secure with no sharp edges, exposed pipes or trip hazards
- With no wall space taken up, rooms can be arranged and re-arranged as needed
- Easy to clean, no hard to reach places for dust and grime to collect
- Quicker heat up time compared to conventional radiators
- Eliminates the hot and cold spots in your rooms, normally associated with conventional radiators.

Benefits

- Elegantly heat your room without losing space to ugly radiators
- Improved Energy efficiency, typically by at least 13%, up to 25% with renewables
- Clean, hygienic heat, maintenance free and no dust marks
- Quickly creates a comfortable, controllable & even room temperature
- Simple re-decoration with no draining down or radiators to move



Ventilation or exhaust fans are used to increase air flow in a building. They can also improve air quality, reduce humidity and extract odours from the air. They are especially effective in kitchen and bathroom spaces which are generally humid by nature.

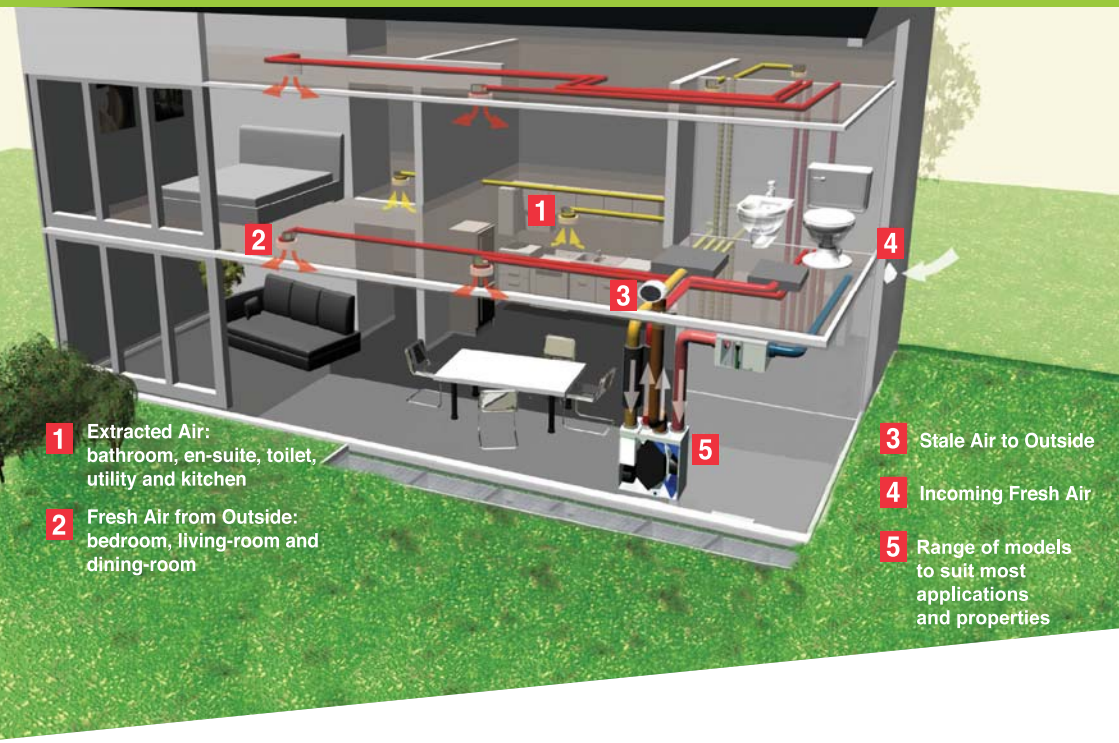
Features

- Prevents mould and mildew build up due to humidity
- Prevents cracked paint and peeling wallpaper associated with high humidity rooms
- Can also be available with lights and heating elements
- Quiet operation

Benefits

- Improved indoor air quality
- Lessen the risk of air based health problems
- Reduces allergens in the air
- Helps to prevent mirrors fogging up in bathroom areas

Mechanical Ventilation Heat Recovery (MVHR)



1. Extracted Air: bathroom, en-suite, toilet, utility and kitchen
2. Fresh Air from Outside: bedroom, living-room and dining-room
3. Stale Air to Outside
4. Incoming Fresh Air
5. Range of models to suit most applications and properties

Heat recovery systems draw in fresh air from outside, while at the same time extracting stale air from within the house. As the fresh air and stale air travel through the counter-flow heat exchanger inside the unit, the thermal energy from the used air is recycled and used to heat the fresh incoming air. Basically as a heat pump, it recycles 80% of the thermal energy from the air.

With virtually no moving parts, these units are virtually maintenance free and simply require both filters to be changed at least once a year. Changing the filters is as simple as changing a light bulb.

Features

- Designed to be Posi Joists
- Keeps the air in your home fresh
- Bypass systems on the heat recovery units mean it can bring in cool air during the summer months

Benefits

- Reduces heating bills.
- Makes your home more energy efficient.
- Reduces the condensation in your home.
- Reduces the risk of mould and damp.
- Reduces amount of airborne allergens entering your home.

The Howarth Green House

Visit the Howarth GreenHouse today

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