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Euroheat
Natural Energy Company

All you'll ever need to know about heating with wood

Euroheat Wood Biomass Guide

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Natural Energy Company

Wood biomass
the future of energy

In a world where we all need to reduce our dependence on fixed carbon fuel sources such as oil and gas, it's good to have options that are greener, cleaner and more beautiful to live with.

Euroheat has grown steadily over the past two decades into the leading wood burning stove and wood biomass boiler company in the UK. We have a national network of approved retailers and installers, who deliver, install and service our stoves and boilers to exacting standards.

Our range encompass stoves for every taste – from traditional to contemporary. Wood log, wood pellet and wood chip boiler systems. Every product has been individually chosen, designed and meticulously tested for construction, quality and heating excellence.

Listening and understanding our customer`s needs means we can offer advice on the most appropriate fuel and appliance type, be it for a small log burning room stove or a complex heating and hot water system.

Euroheat are a long established UK company with an envied range of outstanding products, customer service and after sales support. This award winning service has resulted in a nation wide user base who will only consider Euroheat for their wood biomass heating requirements.

Operating from our base in rural Herefordshire, we have made a firm commitment to the highest standards of environmental practice, creating products that need less fuel, to give out more heat and a minimal amount of CO_2 into the atmosphere.

Euroheat is a company that believes in investing for the future in every sense, and we are passionate about what we do. Our goal is to continue to develop and launch environmentally friendly, superbly constructed products, combining engineering innovation with superior design.

At Euroheat we are seriously committed to reducing our CO_2 emissions, we have created the country's first wood biomass Hetas accredited training centre where members of the heating industry and public can learn and see wood biomass boilers in operation. It is from this centre that a wood chip burning boiler is to provide heating to not only the training centre, but also, to our main office block and other warehousing units. It is estimated that by replacing our existing oil and electricity fuelled heating system our CO_2 emissions for heating will be reduced by at least 90%.

.....so to this end we have produced this brochure to interest and inform you of the products Euroheat offer. Our range is one of outstanding quality and unsurpassed reliability.

Contents

What is wood biomass and how does it differ from fossil fuel?

The vital difference between wood biomass and fossil fuels is one of time scale.

Wood is a carbon based biological material derived from living or recently living organisms. In the context of wood biomass for fuel this is often used to mean plant based material such as trees or crops.

Wood biomass can be harvested on a sustainable basis as part of a constantly replenished crop; CO_2 is taken out of the atmosphere at the same time as it is released by combustion of the previous harvest. This process is often referred to as being CO_2 Neutral.

This maintains a CLOSED CO_2 CYCLE with no net increase in atmospheric CO_2 levels. Fossil fuels such as coal, oil and natural gas are also derived from biological material, but crucially, material that absorbed CO_2 from the atmosphere many millions of years ago. As fuels they offer high energy density, but making use of that energy involves releasing CO_2 during the burn period which was captured over a very long period of time, resulting in increased atmospheric concentrations.

Fossil fuels will in time become more difficult to obtain, more expensive, and finally run out.

Wood can replace fossil fuel for many uses which will help the environment by reducing the amount of CO_2 build up in the atmosphere.

WOOD LOGS

WOOD PELLETS

WOOD CHIPS

WOOD WASTE

The wood burning appliances use fuel in the form of logs, pellets or clean wood waste and there are products to burn each type.

Wood fuelled appliances overview

Logs

The simplest example of burning wood biomass fuel is burning logs in a stove acting as a room heater only. The requirements are to increase room temperature and then maintain it without overheating the room and wasting fuel. To achieve this a stove needs to be designed with controls that allow the fire to slumber (even overnight) and then respond when more heat is required.

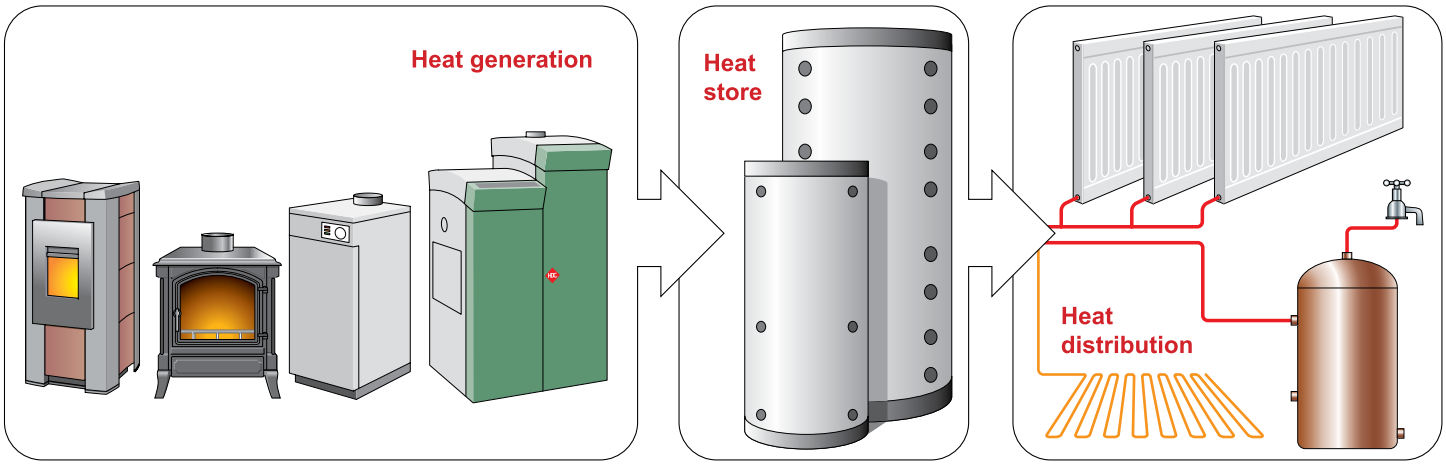
Log boilers and space heaters are used to generate larger volumes of energy for either central heating, hot water or space heating. Commonly wood burning stoves heat one or several rooms, if a boiler is fitted, while dedicated log boilers will provide full house heating even in large properties.

Pellets

Pellet burning stoves and boilers can offer the similar level of control as oil and gas appliances, making them an attractive choice for many. This is because unlike logs, wood pellets, and therefore heat generated can be switched on and off quickly. An intelligent pellet transfer system carries the fuel to the combustion chamber from the fuel storage area as heat is required. A sensor regulates a measured air supply, ignition is achieved automatically and the heating output adjusts continuously to the heating needs. Pellet burning appliances can heat a single room, a whole house or commercial applications.

Wood chips

Burning wood chips normally occurs in a dedicated biomass boiler which converts the energy in the wood to heated water. Wood chip boilers operate automatically, transferring the fuel from a storage bunker to the combustion chamber where it is burnt to produce heated water. The boiler will automatically light, add fuel as required, clean itself and shut down when energy is not requested. Wood chip boilers are suitable for larger domestic properties and commercial applications.



Wood biomass is virtually CO_2 neutral and suitable for individual properties or district heating systems


HDG Compact wood chip boiler supplying central heating and hot water to attached property, school and church.
HDG compact pellet boiler in purpose built remote boiler house for district.
HDG log boiler with single accumulator. Sized for once per day fuelling.
HDG pellet boiler with remote pellet store served by vacuum transfer and wood burning stove heating main living space.

Wood biomass fuel types

Logs

Harmony

Stanford

Efel

Pellets

Rika

Rika

Wood chip

HDG Compact

Wood waste

Harmony

HDG Log boilers

Appliance types

Hwam

Hwam Inserts

Rika

HDG Log boiler

Fabbri

HDG K Series

HDG Compact

HDG Compact

HDG Compact

HDG Compact

Fabbri

HDG Compact

HDG Compact

Log burning stoves and inserts

Harmony

Stanford

Efel

Hwam

Rika

A wood stove is the most popular, flexible and economical wood heating option and is defined as a space heater, designed to heat directly to the room.

A stove can be located almost anywhere there is enough space and where its flue can be properly routed.

Wood burning stoves are generally used as a secondary heat source, but in open plan areas can heat a large proportion of a property. By choosing the right type you can, in conjunction with existing fossil fuel central heating, reduce CO_2 by heating the areas you spend most time in.

Not all types of stoves perform in the same way. For example, some stoves are designed for continuous operation and will burn hour after hour, and offer over-night capability. Other designs have great features such as fast heat up and an attractive flame and are ideal for quick room comfort. Heat storage stoves collect a proportion of the heat produced and release it slowly over several hours. Insert stoves are another option and often chosen where space is limited. Within the Euroheat range whatever type of wood burning system, style or functionality a perfect solution can be found.

When choosing a stove it is important you consider how the stove will operate and fit in within your life style. Stoves operate in three distinctive different ways.

Intermittent operation. A stove which is designed for short quick heating often used for evening and short period operation.

Heat storage. A stove constructed often using stone or ceramic exterior or internal stone mass to collect heat quickly from intermittent operation and then release the stored energy slowly over a period of time.

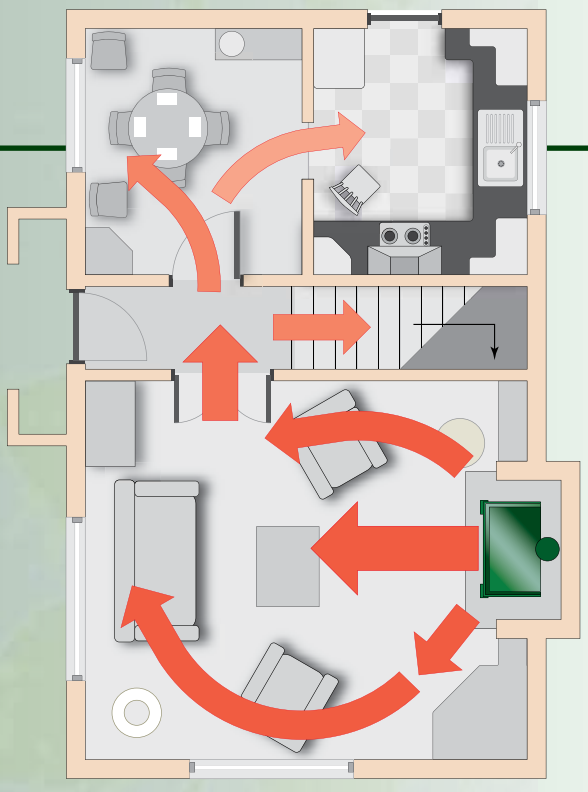
Continuous operation. An advanced designed appliance with very accurate combustion air control over the fires activity. This control allows for long periods of operation without user input such as overnight burning.

At Euroheat we recognise not all wood stoves are the same in concept or operation and we and our retailers can advise on all of these factors before you buy so you get the stove most suited to satisfy your individual needs.

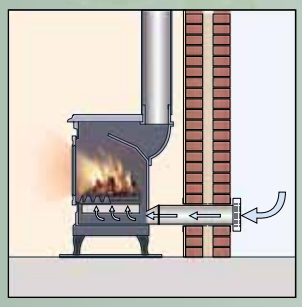
Hwam Insert 30/55

The pros and cons

- Freestanding stoves are normally easily installed
- If a chimney is not available it can often be constructed without too much disturbance
- Ideal as a room or secondary heat source
- Wide selection of types, designs, sizes and performance to suit all needs
- Designed to efficiently use wood logs to produce heat for your home
- Models approved for use in smoke exempt areas
- Simple operation. Some models offer remote control
- Operates without a demand for electricity
- External combustion air connection improves property insulation



Log stoves and inserts transfer heat both radiantly and by convection. Heat will naturally circulate over time to other areas of a property.



- Logs are bulky in nature and require correct storage methods.
- Logs need to be correctly dried before burning
- Regular cleaning and ash removal
- Logs need to be transported by hand

Not all stoves are the same. All Euroheat stoves incorporate the latest and industry leading combustion and control systems unique to the product style.

Log burning stoves for water heating

A wood stove fitted with a water heating boiler has many of the advantages of a room heating stove but with the additional feature of generating heated water as well as space heating in the room in which it is located.

A stove can be located almost anywhere there is enough space and where connections to a heating circuit and a chimney can be properly routed.

A stove with a boiler can be used to entirely run your central heating and hot water or supplement your existing heating system when used in combination with a primary boiler system.

Stoves can operate with a closed 'sealed' or gravity 'open vented' circuit and in combination with alternative heating solutions. A water heating stove is the ideal supplement for resource-saving while at the same time serving as a warming and attractive room heater.

Because the heat output is divided between the water and the room it is very important to choose the right model to achieve the correct balance, which will be influenced by anticipated demand of the heating system as well as the room size.

Modern heating and installation practices can incorporate advanced energy saving system controls to reduce fuel consumption and the regularity of fuelling a water heating wood stove.

Traditional stove water heating installations use open circuit plumbing designs which only allow energy to be transferred into the properties radiator circuit while the stove is burning. Today`s modern system designs can allow for energy to be stored for use later when the stove is not operating. This is achieved by storing heated water in accumulators or thermal stores.

Euroheat specialist retailers can help advise on all of these factors before you buy so you get the stove most suited to satisfy your individual needs.

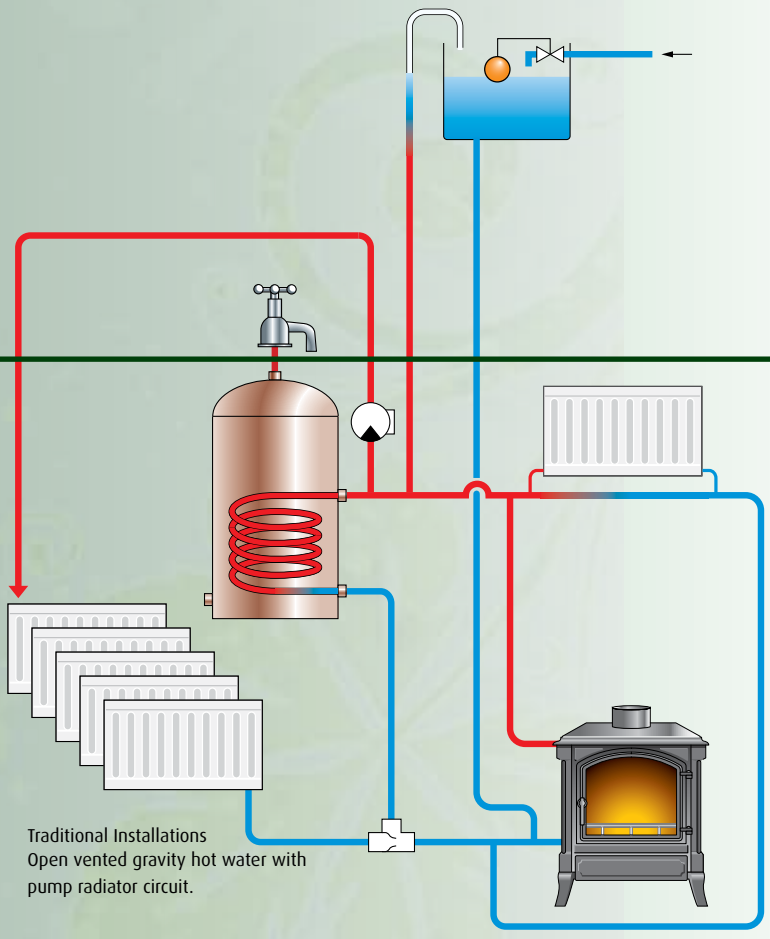
Hwam Monet

Harmony Classic

The pros and cons

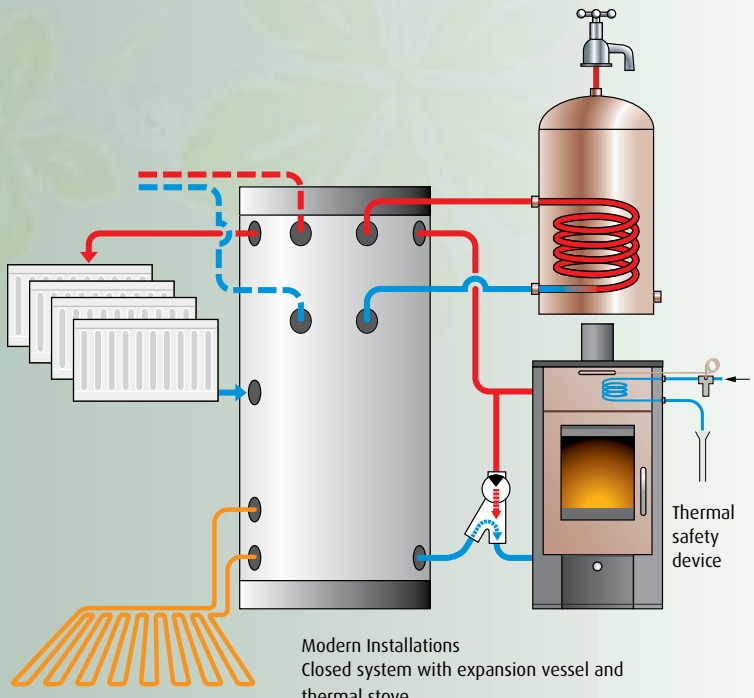
- Centralized house heating from one location
- If a chimney is not available it can often be constructed without too much disturbance
- Ideal as a room and central heating solution in smaller properties and passive house designs
- Contemporary and traditional designs
- Advanced modern stoves have an improved ratio of water to room heating (up to 70-30%)
- Alternative heating sources can be linked to provide heating

- Water heating stoves have higher installation costs than room heating stoves
- Larger quantities of dry wood will be required which will need transporting by hand
- As the appliance is installed within the property more house cleaning maybe required
- Quantities of dry ready to use wood need to be stored locally to the property.
- Suitably sized log stores will be required to dry wood during the summer



Traditional Installations
Open vented gravity hot water with pump radiator circuit.

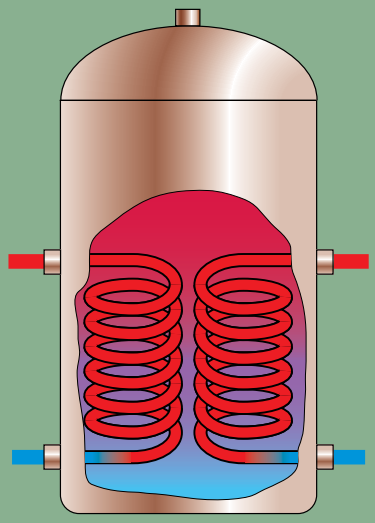
Gravity feed systems are vented to atmosphere and require an expansion tank usually in the loft space. A way of dissipating any excess heat in case of an electricity or system failure is required. This is normally an adequate 'heat leak' in the form of a radiator often located in a bathroom.



Modern Installations
Closed system with expansion vessel and thermal stove.

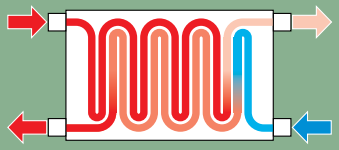
Closed systems are un-vented pressurised design and closed to atmosphere, therefore they have no feed or expansion tank installed. It is important to include the appropriate safety control features to deal with any water expansion or excess heat generated. Only suitable for modern stoves fitted with thermal safety device. Shown here with thermal store, this enables heated water to be stored for use when its energy is needed later.

Hot water storage cylinder- dual coil



Dual coil hot water cylinders allow for two independent heating sources from different systems to perform a common service

Heat exchangers



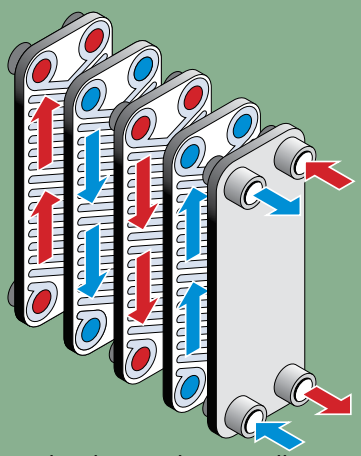
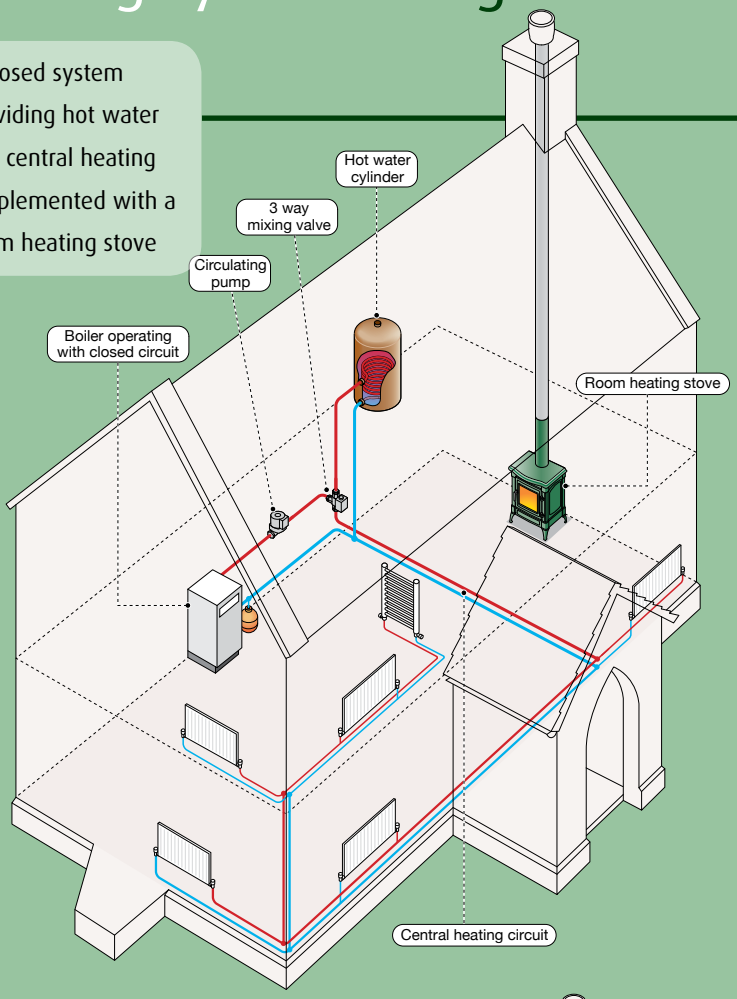


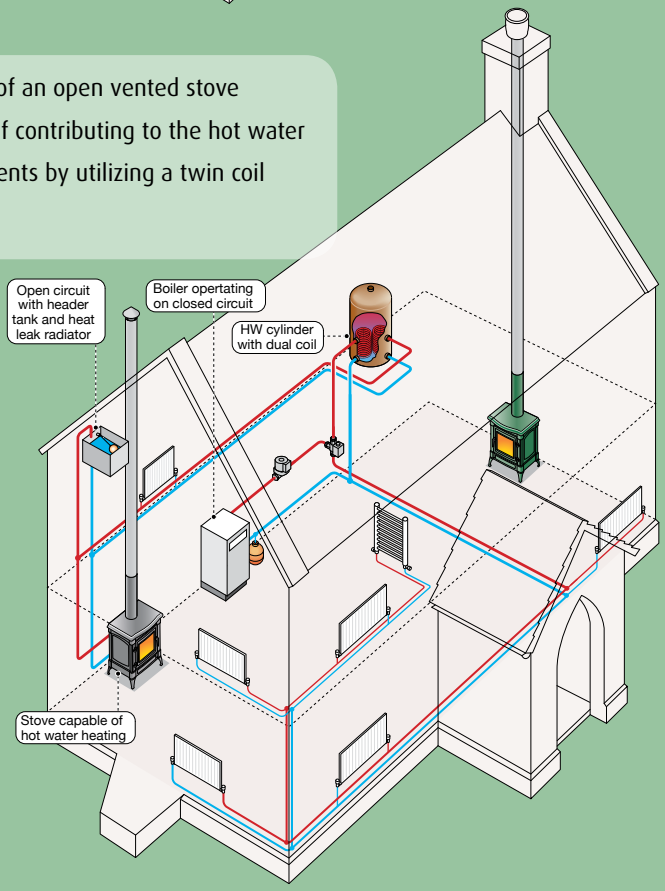
Plate heat exchangers allow two separate water circuits to transfer heat between themselves and act as separate hydraulic circuits

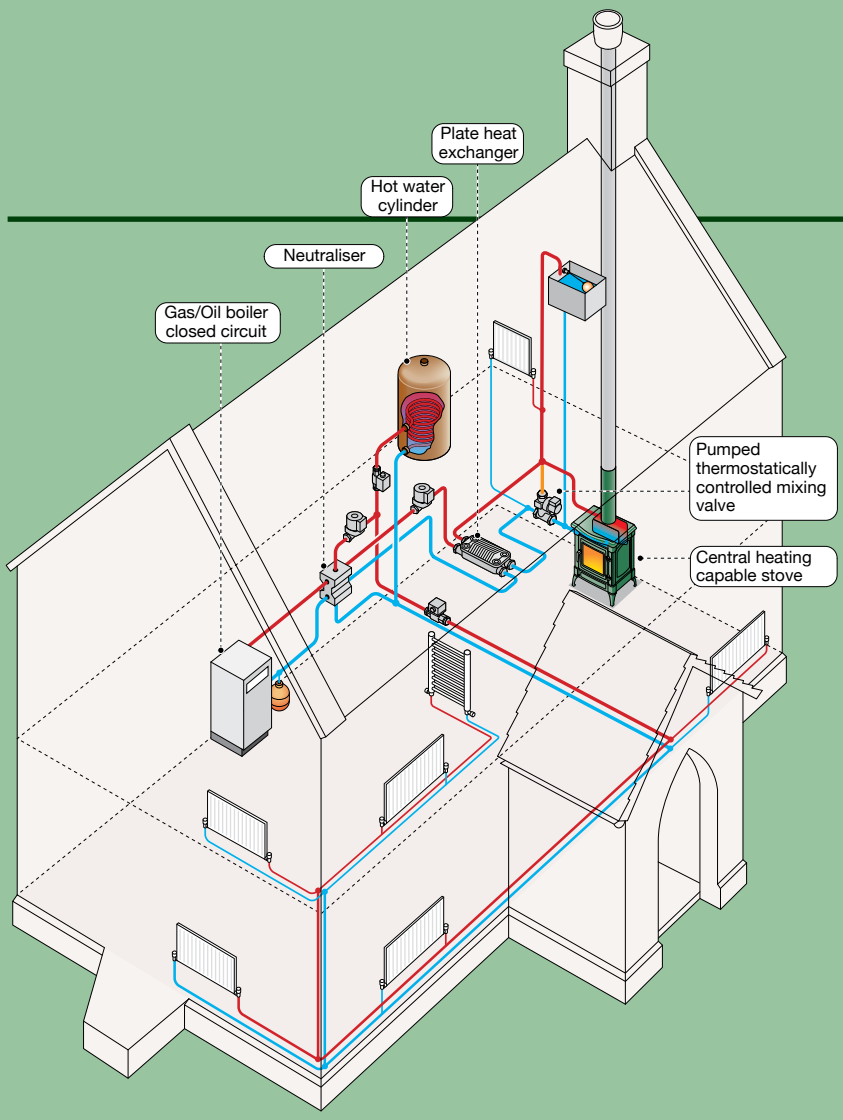
Heating system integration

A closed system providing hot water and central heating supplemented with a room heating stove



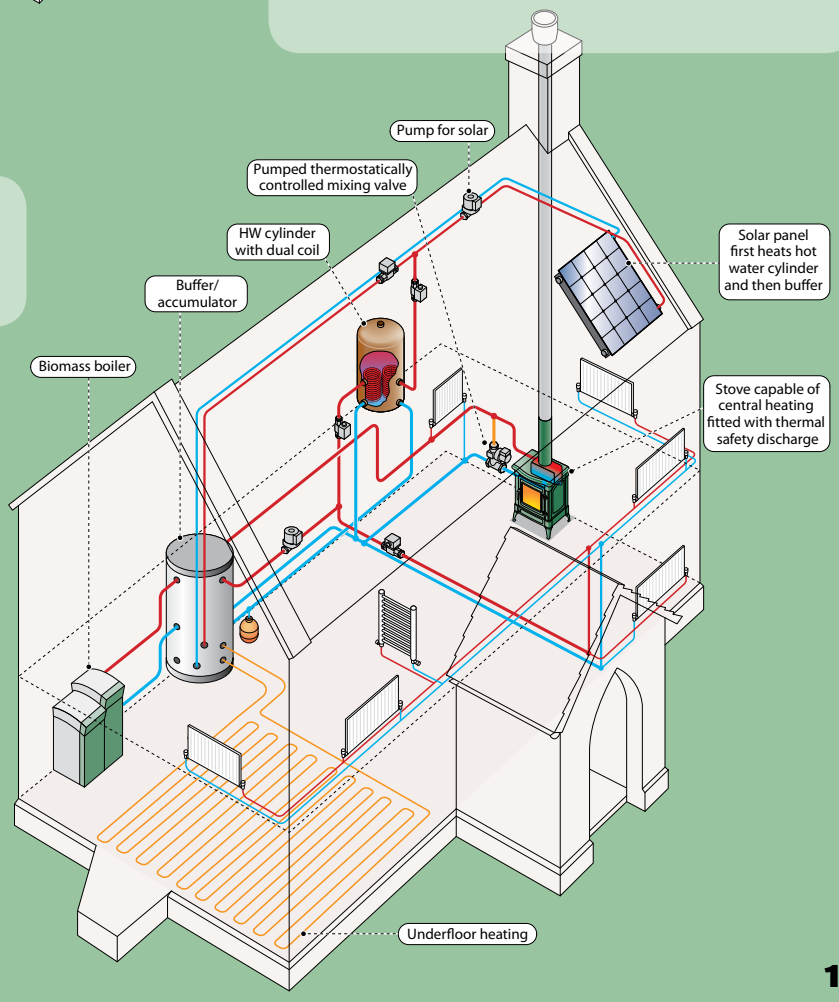
Addition of an open vented stove capable of contributing to the hot water requirements by utilizing a twin coil cylinder



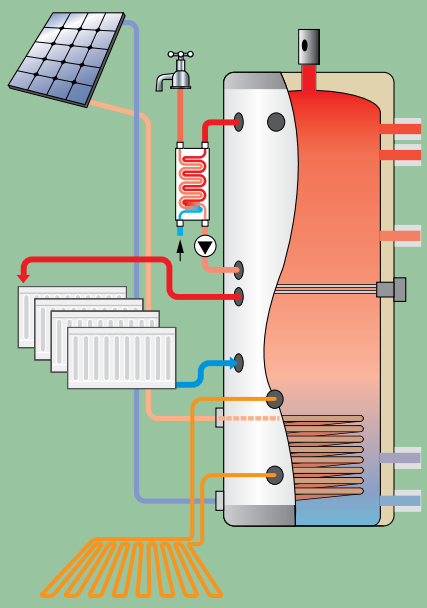


Addition of a central heating capable stove, linked with a fossil fuel boiler. Utilizing a heat exchanger to transfer heat between open and closed heating circuits. The minimum stove temperature is maintained by a thermostatically controlled mixing valve

Biomass boiler and stove which is suitable for use in a closed heating system linked via a thermal store/ accumulator. Solar incorporated to first heat hot water cylinder then accumulator



Use of a thermal store as a system linking solution from which hot water and central heating will be distributed.



Comfortable heating.With wood!

Log burning boilers

HDG R Series 20-25-30
Domestic light commercial

HDG Navora 20-25-30-40-50
Domestic and/or commercial

HDG Euro 30-40-50
Large domestic and/or commercial

HDG Turbotec 50-60
Large domestic and/or commercial or process

HDG Bavaria 80-125-250
Commercial and process

Smaller domestic properties and small commercial installations

R series
The R range of log boilers are ideally suited to the smaller domestic dwelling. Purpose designed for simple and easy operation. Most commonly used linked with a fossil fuel (oil or gas) boiler.
Ideal entry level boiler for 2-3 bedroom property or high insulated 3-4 bedroom house. 145 litre fuel chamber capacity.
Suitable for wood logs

Navora 20-50
Advanced domestic and commercially constructed log boiler. Designed for long life operation with the minimum of replacement parts over the 20-30 year expected life.
As a guide the Navora 20-50 range of log boilers might suit:

Navora 20,25,30,
Well insulated 3-4 bedroom house with average hot water demand. Ideal as the primary energy source.
Small to medium commercial application such as small shop specialist business unit.
150 litre fuel chamber capacity.

Navora 40-50
Average insulated 3-4 bedroom house or well insulated 4-6 bedroom property with above average hot water demand. Ideal as the primary energy source.
Medium commercial application such as offices, larger shop or industrial unit.
195 litre fuel chamber capacity.

Larger domestic properties and commercial installations

Euro 30-40-50
Commercially constructed log boiler designed for both domestic and commercial applications. Scale liner is an option, 220 litre fuel chamber capacity. As a guide the Euro 30-40-50 range of boilers might suit.

Euro 30
Well insulated 3-4 bedroom house with average hot water demand. Ideal as the primary energy source. Small to medium commercial application such as small shop specialist business unit.

Euro 50
Average insulated 3-4 bedroom house or well insulated 4-6 bedroom property with above average hot water demand. Ideal as the primary energy source.
Medium commercial application such as offices, larger shop or industrial unit.

Turbotec 50-60
Commercially constructed log boiler for heavier load applications. Suitable for 1 meter logs with large fuelling chamber. Suitable for larger country or urban properties. Large guest house or small hotel.
340 litre fuel chamber capacity.

Bavaria 80-125-250
Commercially constructed log boiler for heavy load installations. Robustly built for a long life in adverse conditions.
As a guide the Bavaria 80-125-250 range of boilers might suit:

Bavaria 80
A commercial boiler for continuous working if required in large country properties or industrial applications. Fitted with scale liner as standard to help cope with all types of clean wood waste as well as 500mm log length.
190 litre fuel chamber capacity.

Bavaria 125
A commercial boiler for continuous working when required. Ideal for large country properties or industrial applications where an automatic boiler is not suitable. Scale liner is an option.
875mm log length and 190 litre fuel chamber capacity.

Bavaria 250
A commercial boiler for continuous working in very large properties or industrial applications. Scale liner is an option. Up to 1250mm logs through a 750mm loading door, very large fuelling chamber 562 litres.

RHI. (Renewable heat incentive)

The commercial RHI is for a period of twenty years. To make full benefit of the payment structure for both domestic and commercial the boiler you choose must last the 20 year period or more without expensive repairs. Replacement is not an option as this would be a new installation and the RHI payments may be withdrawn.

Pay a little more at the beginning and save a large amount of money over twenty plus years with an HDG quality boiler.

Overview

Modern log boilers provide clean and efficient heating and are fuelled by hand once or twice each day. When sized correctly the fuel chamber is large enough to hold enough energy in the form of wood to supply the average winter daily heating requirements. Occasionally during severe weather a second load may be required.
They operate at high levels of efficiency and have large fuelling chambers. Log boilers systems are applicable to all domestic-sized situations and for smaller commercial applications, such as country houses and small industrial buildings. The Bavaria range can suit larger heat requirements when dedicated labour is available.
Log boilers begin to become less practical if the system design requires regular refuelling. A correctly sized log boiler in average winter weather conditions will be ignited and fuelled once per day. In colder periods a second operation maybe be required. When choosing a log boiler it is the fuelling chamber size which is the main decision when deciding on a particlular unit, not the kW output of the boiler.
During the combustion process more energy (heated water) will be produced than is required at that time. This excess heated water is transferred and stored into an accumulator. This is a large vessel of stored heated water containing the energy from the wood. This accumulated energy can be stored for long periods until it is used for heating or hot water requirements.
When burning wood there are two stages of the combustion process, firing the volatile gas and then the fixed carbon (charcoal). To burn wood efficiently the boiler needs to be able to operate in whatever stage of combustion is occurring. The release of gas is known as gasification, the wood partially burns in the fuelling chamber which releases the gas. The gas is drawn into a separate combustion chamber where it mixes automatically with secondary air to burn in ideal conditions. The on-board system control monitors the oxygen concentration and/or temperature of the exhaust gasses or water temperature (Bavaria). The controller automatically adjusts primary and secondary combustion air through independent air controls, optimising combustion as the wood burns.
Wood burning boilers, in common with all wood biomass fuels, burn most efficiently and cleanly when burnt hot and fast.

Pros and cons

- Simple to operate and ignite
- Burns logs and clean wood waste
- Correctly sized once or twice per day fuelling
- Located in a boiler room simplifies cleaning and maintenance
- Very high efficiency up to 92% depending on model
- Wood logs can be stored locally to the boiler house
- The boiler house can be located remotely to the property to be heated
- Can be easily linked with an alternative heating source
- Requires a dedicated boiler room capable of fitting the boiler and accumulator
- Requires a daily fuelling
- Fuelling is undertaken by hand
- Requires occasional ash removal

Intelligent control

Navora, Euro and Turbotec

The on board controller not only determines the combustion of the wood through the gasification and charcoal stages but organizes the distribution of the heated water into the accumulator.

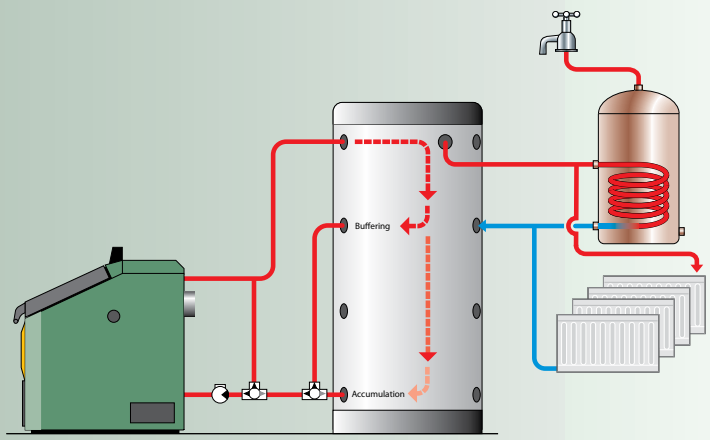
At initial lighting the controller understands what process is occurring. As the water temperature in the boiler`s water jacket rises the circulating water pump starts. When the temperature rises to a preset level the first of two motorized valves starts opening to load energy into the top 1/3rd of the accumulator. This ensures that as soon as heated water is produced, it is available for whatever heating requirement is needed, domestic hot water or space heating. The temperature in the upper section of the accumulator is monitored by a sensor. When the temperature reaches a preset level the 2nd mixing valve starts to operate loading excess energy to the lower section of the accumulator, storing the heated water for use later. This is called intelligent accumulator management.

By storing energy, the regularity of continuous boiler fuelling is avoided and greatly reduces manual input and maximises efficiency.

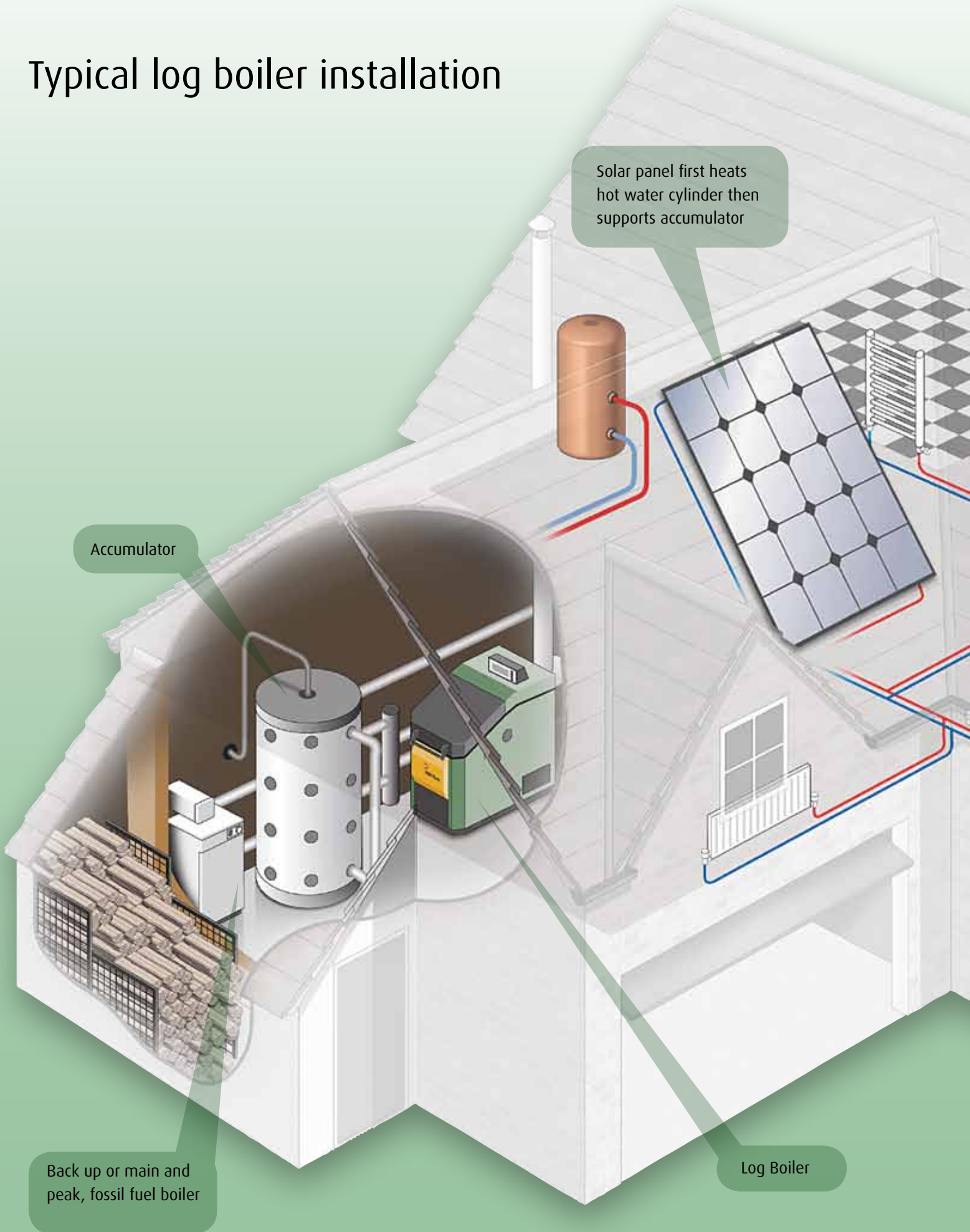
HDG R series
This range incorporates a combustion temperature sensor which modulates the on board flue fan to alter the required combustion conditions.
The R series is commonly used with other boiler systems such as fossil fuel.

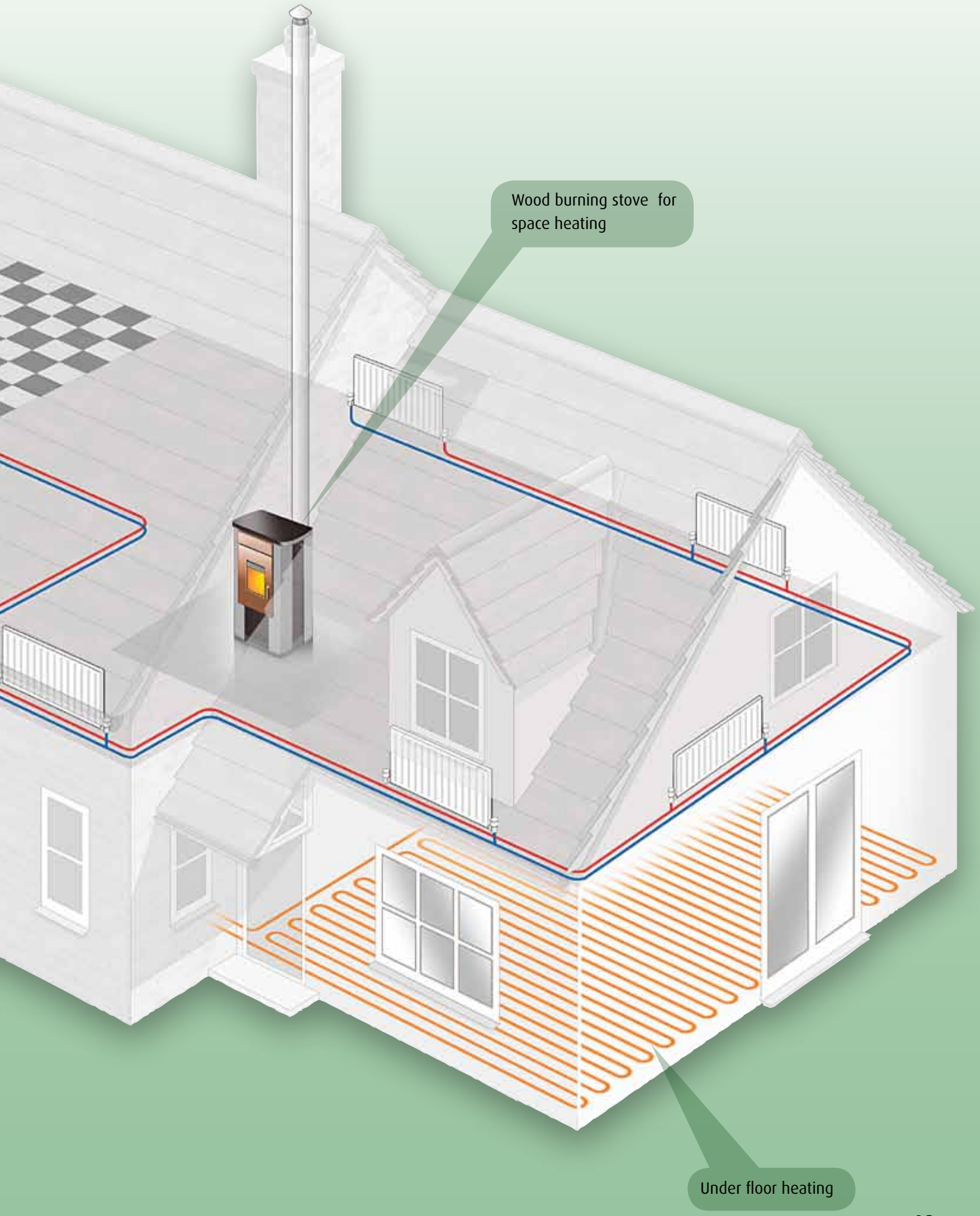
HDG Bavaria log boilers
Bavaria range are natural draught boilers using the combined effects of chimney suction and optional boiler fan to introduce combustion air to the burning process. The Bavaria range are designed to operate under adverse conditions and mixed fuel types.

For very large heating requirements using wood logs and clean wood waste the Bavaria is the perfect choice.
It is also suitable for industrial, community and manufacturing projects when dedicated labour is available.



Typical log boiler installation




Wood burning stove for space heating
Under floor heating

Wood pellet stoves

Rika Como

Rika Memo

Simply fill the pellet container once and the stove does the rest with many hours of continuous operation. The automatic fuel supply takes care of it all.

Pellet stoves offer similar aesthetics to a wood burning stove without the complications of logs.

It all starts with lighting the fire. You only need to push a button or set the desired ignition time for when you want heat. The onboard controller then automatically controls the burning operation. Wood pellet stoves burn very efficiently and the pellets require far less manual handling than logs.

The pellet fuel is more energy dense than logs and the hopper of the stove can hold sufficient pellets for several days burning, depending on the model. Pellet stoves are easier to regulate than log burning stoves, and can be left to burn all day with minimal attendance.

A pellet stove consists of a hopper to store the pellets and a screw feed mechanism to transfer the pellets into the combustion chamber where they burn under controlled conditions. The heat output is controlled by regulating the flow of pellets into the combustion chamber by choosing a pre-set heat output (30-100%) or by a room thermostat. Because of the highly efficient combustion the ash pan may only need to be emptied infrequently.

The pros and cons

- High level of control
- Ideal as a room heater
- A selection of designs and performances to suit most situations
- Easily installed
- Clear view of the fire
- Designed to be highly efficient
- Easy to fuel, lengthy refuelling periods
- A natural fuel generally available in the UK
- Only small storage area required for pellets
- Internal cleaning required only every two-three days
- Good pellet quality is important
- Require an electrical supply
- Contains a number of moving parts
- Requires annual maintenance
- Flame picture may not be as attractive as a log burning stove
- Some background noise may be detectable from the operation.

All of these facts are what makes pellets the most convenient of all wood fuels for room heating stoves

Controls

Pellet stoves can offer the same level of control as oil and gas appliances, making them an attractive choice for many. Use the simple controls on the stove itself or have a remote pellet control system with external room thermostat and time clock or telephone control from outside the house using a mobile phone. Decide the heat output required from 30%-100% of capacity. Choose the start and stop times to suit your way of life.

Advanced system design simplifies operation and ensures a long operational life

Wood pellet stoves for water heating

Pellet burning stoves

Rika Evo Aqua

A beautifully designed wood pellet stove with the capability of providing room heating, central heating and hot water. This is a wood burning stove at its most advanced. Couple that with the ability to programme the pellet stove to turn itself on and off when required, automatically ignite and fully adjust from low to high heat output and you have a convenient, economic and environmentally friendly way to take care of all your heating needs.

The pellet fuelled stoves such as the Rika Evo Aqua combine fire with water heating, providing even more comfort and warmth for your home.

Thanks to innovative control systems, the stove produces heated water for central heating and hot water demands automatically as and when required, while at the same time serving as a warming and attractive room heater.

Pellet stoves can be integrated without difficulty in all heating conventional systems or used as a secondary heating source in combination with an oil or gas boiler. As a primary heating solution the majority of the annual energy required can be provided by the pellet water heating stove. For summer use when room heating is not required, thermal solar can help support hot water demands.

The pellet stove operation works in conjunction with a water storage cylinder called a buffer or thermal store. This buffer delays the request from the heating or hot water requirements by storing a quantity of energy. This prevents the pellet boiler cycling, (switching on and off regularly) which greatly improves the efficiency of operation and reduces wear and tear on internal components.

Pellet storage can be local to the stove via an internal hopper or remotely stored in larger volumes and moved to the stove via a vacuum transfer system.

These stoves burn very efficiently and the pellets require far less manual handling or storage space than logs.

A pellet stove consists of a hopper to store the pellets (local or remotely), screw feed mechanism to transfer the pellets into the combustion chamber, an internal ignition system and flue extract fan. The heat output is thermostatically controlled by regulating the flow of pellets into the combustion chamber which modulates depending on heating demand. The stoves are ignited electronically and the ash falls into an ash pan at the base of the stove. Because of the high efficiency combustion, the ash pan requires only occasional emptying.

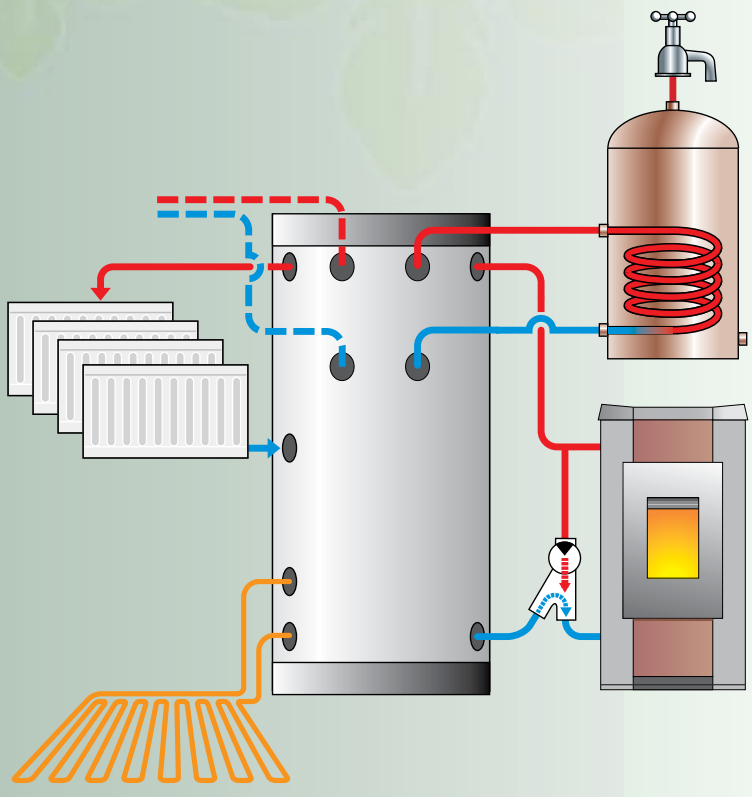
The pros and cons

- Fully automatic pellet home heating system
- Fully programmable
- Heating capacity: from 2 to 15 kW
- Room heating - water ratio: 10% - 90%
- Attractive room heater
- Large capacity local hopper
- Long burn times between refuelling
- Optional remote fuel storage system for bagged or bulk delivery

- Good pellet quality is important
- Requires electrical supply
- Requires maintenance every two or three days
- Flame picture not as attractive as logs
- Some background noise maybe detectable
- Requires annual maintenance by an engineer
- Requires occasional ash removal

Centralized heat distribution

The heated water produced by burning wood pellets is transferred and stored in a buffer or thermal store. This is the central distribution point for hot water or central heating demands. Additional heating sources such as solar, other wood heating water appliances or fossil fuel boilers can also be connected.



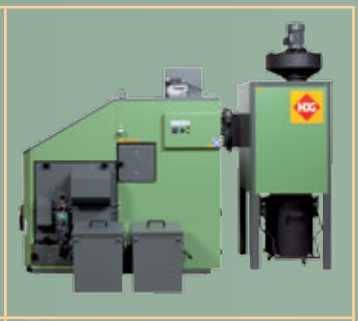
Comfortable heating.With wood!

Wood pellet boilers

HDG K series
Domestic light commercial

HDG Compact 25-50
Domestic and/or commercial

HDG Compact 65-80
Large domestic and/or commercial



HDG Compact 100-200
Commercial and process

Smaller domestic properties and small commercial installations

K series
The K range of pellet boilers are ideally suited to domestic properties or light commercial. Purpose designed for simple and easy operation both when fueling with wood pellets or removing ash.
As a guide the K series pellet boilers might suit:

K10,
Very well insulated modern house. 2-3 bedrooms or more if of passive constructed. Older 1-2 bedroom property.
K15,
Very insulated modern house 3-4 bedrooms or more if passive constructed. Older 2-3 bedroom property.
K21,
Well insulated 3-5 bedroom property. Poor insulated 2-3 bedroom. Small low energy commercial application such as high street shop.
K26,
Well insulated 4-6 bedroom house. Poor insulated 3-4 bedroom. Small low energy commercial, larger shop or small warehouse.

Compact 25-50 range
Commercially constructed pellet boiler for domestic applications
As a guide the Compact 25-50 range of pellet boilers might suit:

Compact 25,
Well insulated 4-6 bedroom house with larger than average hot water demand and/or swimming pool. Small to medium commercial application.
Compact 35,
As Compact 25, though larger all round application
Compact 50,
Medium to large country property or large urban house. Small school or rest home, manufacturing process with heat requirement or space heating.

Larger domestic properties and commercial installations

Compact 65-80
Commercially constructed pellet boiler designed for domestic and commercial applications.
As a guide the Compact 65-80 range of pellet boilers might suit:

Compact 65,
Medium to large country property or large urban house. Small school, rest home, manufacturing process with heat requirement or space heating.
Compact 80,
Large country property or large urban house. Medium rural primary school, rest home, manufacturing process with heat requirement or space heating.

Compact 100-200
Commercially constructed pellet boiler for heavy load applications with continuous long operation periods or regular stop and start applications.
As a guide the Compact 100-200 range of pellet boilers might suit:

Large country or urban houses. Medium to large hotels, rest homes and medical care.
Large shop or showroom properties, such car, supermarket, shopping centres and out of town stores.
Process applications such as wood fuel drying, food, animal, chicken production.
Compact 200 cascade solutions
Euroheat offer a unique option to link multiple boilers together to match maximum heating demand and minimum requirements. Fitting a single large boiler to meet maximum heat requirements results very poor operation during most of the year when far less heat is required. Up to 10 Compact 200 can be cascaded togther.

Almost any application with high energy input either regular or on erratic demand can be suitable for an HDG Compact boiler

RHI. (Renewable heat incentive)

The commercial RHI is for a period of twenty years. To make full benefit of the payment structure for both domestic and commercial the boiler you choose must last the 20 year period or more without expensive repairs. Replacement is not an option as this would be a new installation and the RHI payments may be withdrawn.

Pay a little more at the beginning and save a large amount of money over twenty plus years with an HDG quality boiler.

Wood pellet boilers are simple to use and very reliable

Wood pellet boilers function like fossil fuelled boilers (oil & gas). When heat is required they will automatically ignite, feed fuel to the fire, self clean and switch off when not required. Pellet boilers are now an excellent alternative to traditional oil, propane, and natural gas boilers.
Almost any heating system can be retrofitted with a wood pellet boiler, either as a stand-alone heat source, or as a primary or back-up heat source in conjunction with another boiler.
Wood pellets are a lower cost, CO_2 neutral fuel and from a renewable source. Typically they are made from compressed sawdust which can be sourced locally within the UK. Pellets are small, dry, uniform, and energy dense and they easily 'flow'. They are well suited to smaller and in some cases more sophisticated remote delivery mechanisms.

Pellet handling
Pellets are available in pre-packed bags (normally 10 or 15kg) for ease of handling and convenience. Pellets can be bulk delivered and stored in the most simple and clean manner. Larger domestic models can be vacuum fed from a separate store.

Pellet feed systems
For bulk deliveries, pellets can be blown directly into a large on site fuel storage area. Then transferred by vacuum or auger feed automatically as energy is required. Whichever method of storage and delivery is chosen, the intelligent feeding systems will only transport the right quantity of pellets to the combustion chamber. Because ignition is achieved electrically and the heating output adjusts continuously to the heating needs, the depletion of the store is at the most economic rate possible.

The pros and cons

- Fully replace fossil fuelled boilers
- Fully automatic control/feed systems
- Automatic ignition and cleaning
- Less bulky fuel and cleaner than log or wood chips
- Boilers suitable for all size applications
- Running costs are stable and reliable
- Supports UK economy with pellets are produced locally
- Designed for long operational life

- Pellet quality is important for good operation
- Higher installation cost compared to fossil fuel boilers
- Requires dedicated boiler house and fuel store
- Requires electrical supply
- Can require more maintenance than fossil boiler
- Require occasional ash removal and inspection

Fuelling by hand

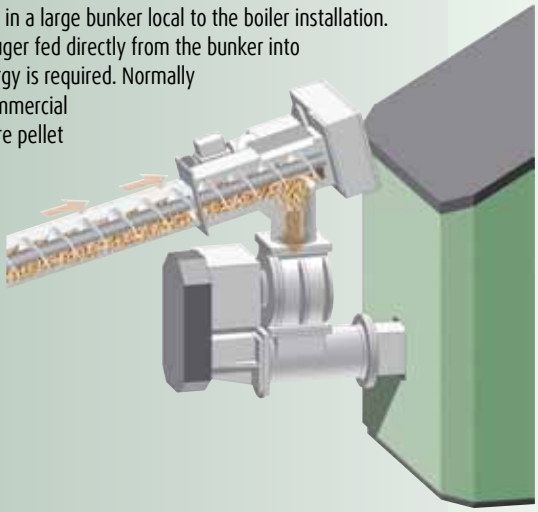
Pellets are stored in pre-packed bags (normally 10-15kg) for ease of handling and convenience. The bags can be purchased individually or delivered on a pallet, making them ideal for smaller domestic applications and eco properties. Refuelling commonly takes place every one or two days

Automatic vacuum transfer

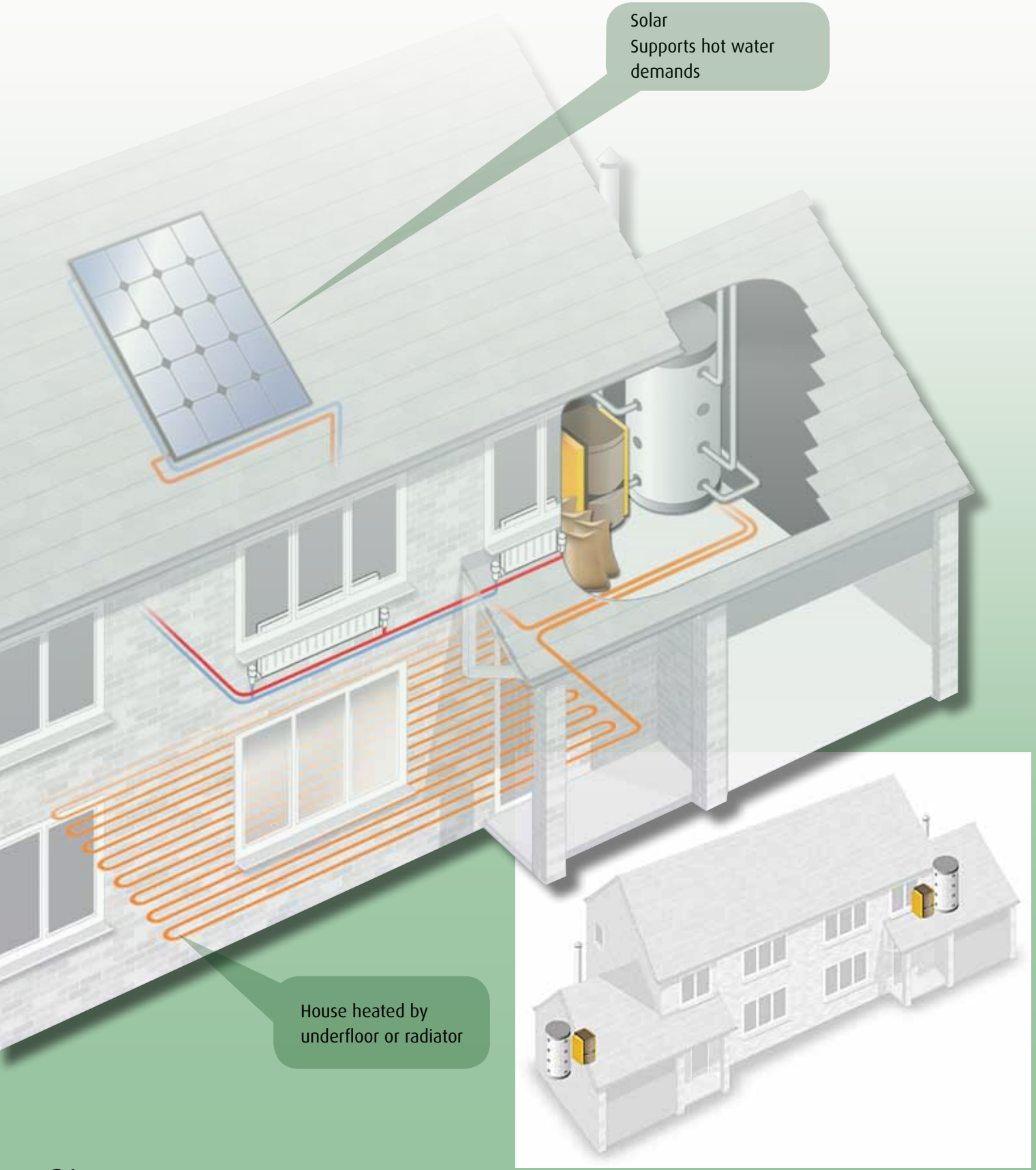
Pellets are stored remotely in a large purpose designed store or sack silo. Local to the boiler is small pellet hopper. When the pellet level of this hopper drops below the preset level, the system automatically refills using vacuum transfer from the main pellet bunker. Used in larger properties where pellets will be bulk delivered.

Automatic auger transfer

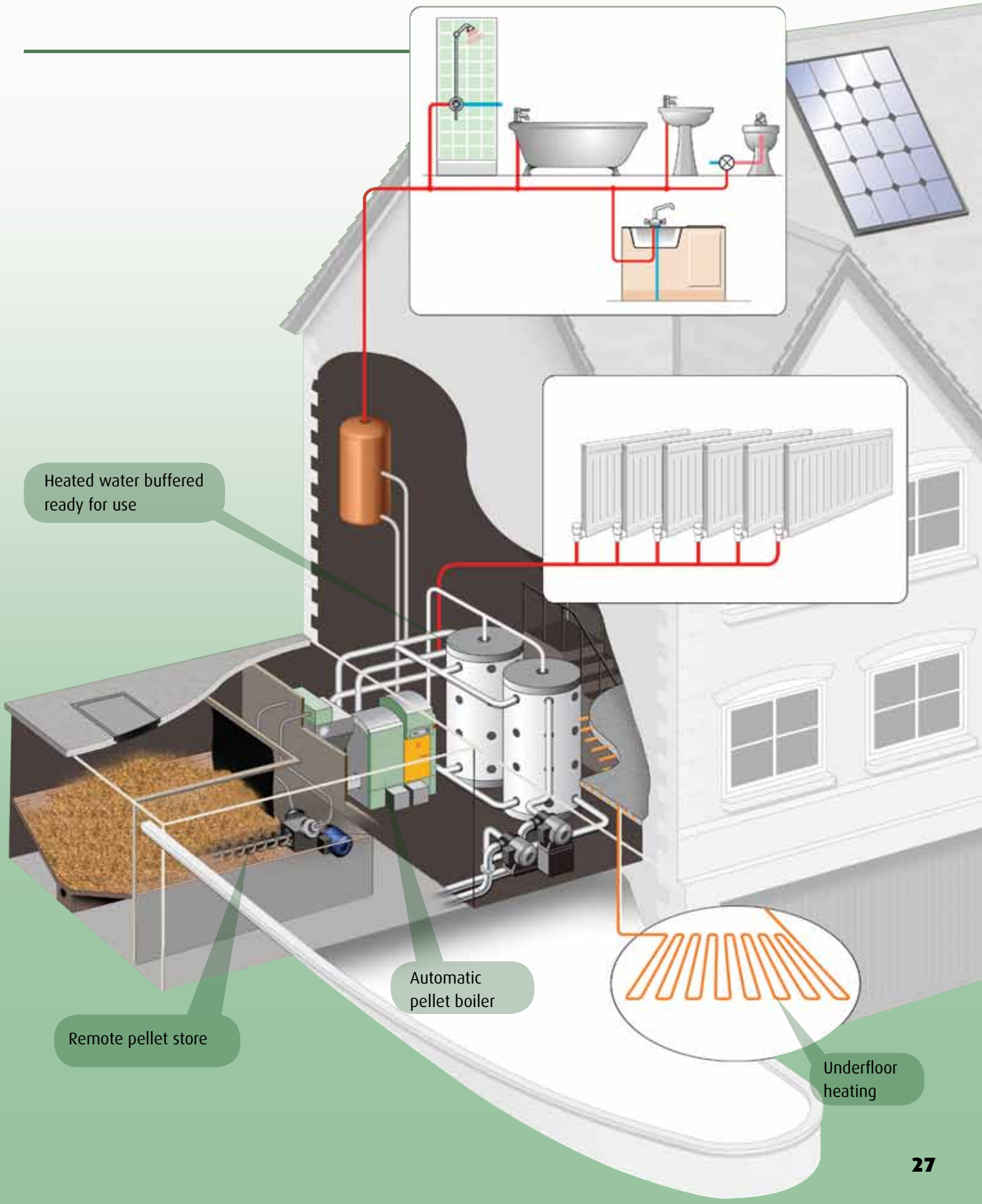
Pellets are stored in a large bunker local to the boiler installation. The pellets are auger fed directly from the bunker into the boiler as energy is required. Normally used in larger commercial installations where pellet quality cannot be guaranteed.



Domestic pellet boiler fitted in garage



Commercial pellet boiler



Comfortable heating.With wood!

Wood chip boilers

HDG Compact 35
Domestic and/or light commercial

HDG Compact 50-80
Domestic and/or commercial

HDG Compact 100
Large domestic and/or commercial

HDG Compact 150-200
Commercial and process

Smaller domestic properties and small commercial installations

Compact 35-80 range

Commercially engineered chip boiler sized for domestic applications.
As a guide the Compact 25-80 range of chip boilers might suit

Compact 35,
Well insulated 4-6 bedroom house with larger than average hot water demand and/or swimming pool. Small to medium commercial application.

Compact 50,
Medium to large country property or large urban house. Small school or rest home, manufacturing process with heat requirement or space heating.

Compact 65,
Medium to large country property or large urban house. Small school, rest home, manufacturing process with heat requirement or space heating.

Compact 80,
Large country property or large urban house. Medium rural primary school, rest home, manufacturing process with heat requirement or space heating.

Larger domestic properties and commercial installations

Compact 100-200
Commercially constructed chip boiler for heavy load applications with continuous long operation periods or regular stop and start applications.
As a guide the Compact 100-200 range of pellet boilers might suit.

Large country or urban houses. Medium to large hotels, rest homes and medical care.
Large shop or showroom properties, such car, supermarket, shopping centres and out of town stores.
Process applications such as wood fuel drying, food, animal, chicken production.

Compact 200 cascade solutions
Euroheat offer a unique option to link multiple boilers together to match maximum heating demand and minimum requirements. Fitting a single large boiler to meet maximum heat requirements results very poor operation during most of the year when far less heat is required.
Up to 10 Compact 200 can be cascaded together.

Almost any application with high energy input either regular or on erratic demand can be suitable for an HDG Compact boiler

RHI. (Renewable heat incentive)

The commercial RHI is for a period of twenty years. To make full benefit of the payment structure for both domestic and commercial the boiler you choose must last the 20 year period or more without expensive repairs. Replacement is not an option as this would be a new installation and the RHI payments may be withdrawn.

Pay a little more at the beginning and save a large amount of money over twenty plus years with an HDG quality boiler.

Wood chip boilers are in many ways similar to pellet boilers except of course for the fuel itself. Modern wood chip boilers are highly efficient, clean burning and are totally automatic. Wood chip boilers are generally more suitable for larger domestic and commercial applications. Some models designed for wood chips can also burn pellets, however boilers designed specifically for pellets cannot generally use wood chips. A wide range of boiler systems are commercially available but all share the same basic features of a boiler, a chip storage facility and a feed mechanism.

Wood chips are made from whole trees, branch wood or coppice products which have been mechanically chipped. Ideally the wood needs to have been air-dried before chipping, or chipped then allowed to dry. Wood chips are delivered into a local bunker close to the boiler. On demand the wood chips are augured into the boiler which maintains a constant fuel supply.

Wood chip boilers within our range have advanced combustion control technology for constant heat performance, vertical self cleaning heat exchange surfaces and built in safety features such as rotary sluice prior to the final combustion feed auger to prevent any back burn. HDG boilers have outstanding performance and reliability for efficient and safe operation.

HDG chip boilers do not have to run constantly. Due to the advanced auto ignition the boiler can run for as short period as one hour and then switch until next needed.

Pros and cons

- Can fully replace fossil fuelled boilers
- Fully Automatic control/feed systems
- Wood chips are lower cost than wood pellets
- Installations can also be designed to burn wood pellets, sawdust and briquettes
- Running costs are stable and reliable
- Good for economy as source fuel can be grown and harvested locally
- Several boilers can be grouped together for redundancy and peak heat demands
- Remote boiler control over network or internet can be provided
- Higher installation cost compared to fossil fuels
- Require larger fuel bunkers than wood pellets
- Due to initial capital costs more suitable to larger domestic and commercial installs.
- Requires corrected sized graded fuel
- Requires local maintenance and inspection
- Requires annual maintenance by engineer
- Requires occasional ash removal

Wood chip feed systems

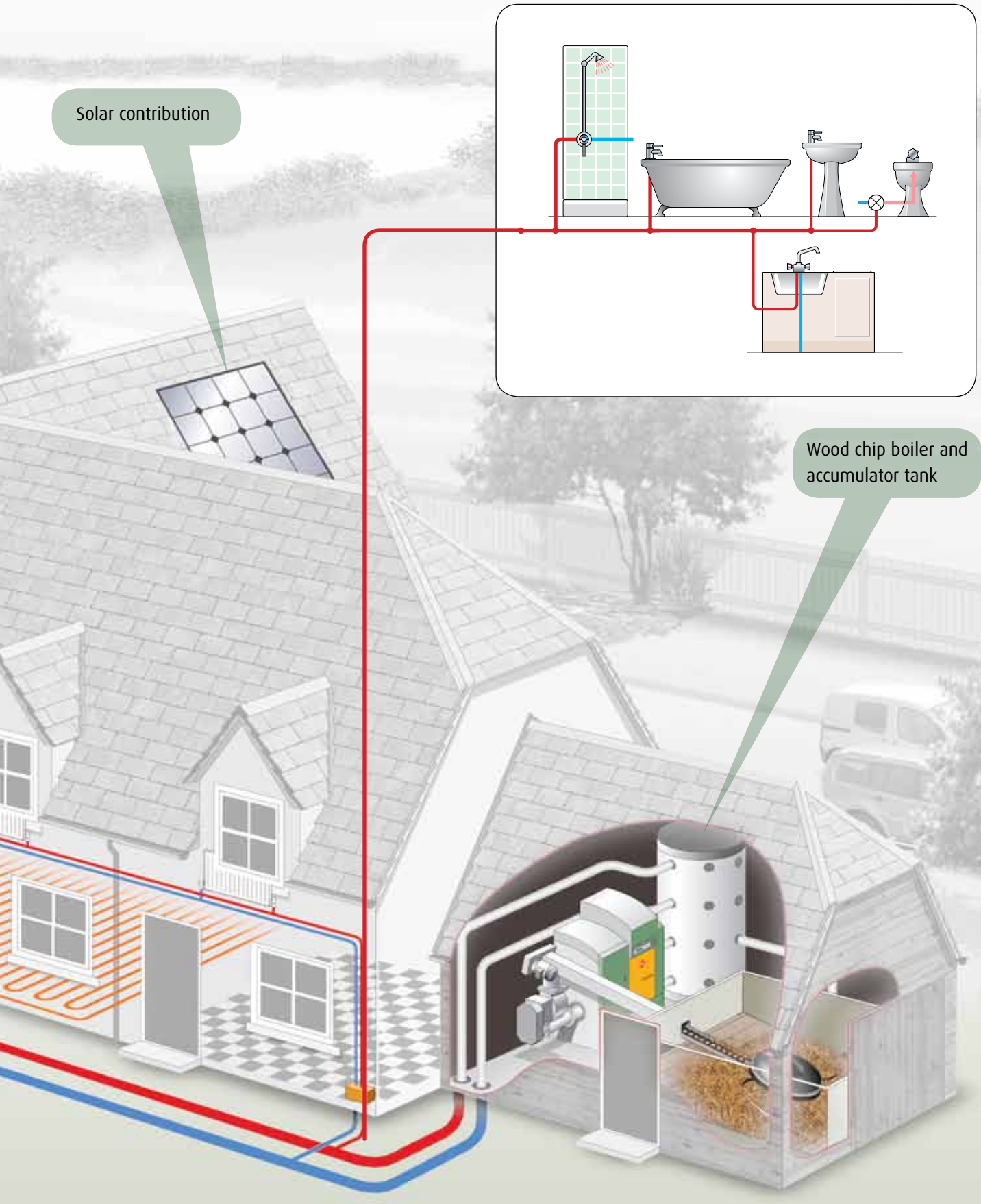
Wood chip boilers employ delivery systems designed to transport wood chips, wood shavings and wood pellets.

Wood chips are typically stored in a timber floored bunker. A flexi-blade agitating head feeds the fuel into a central auger which then transports the material into the boiler feed system. For large bunkers the blades are hinged for extra reach, but otherwise work in the same way.

Wood chips are more bulky than pellets. Delivery in bulk is usual for wood chips and provision to deposit them into the bunker by tipping and/or conveying is designed into the installation. Key considerations are access for vehicles, proximity to boiler and frequency and method of fuel delivery.

Wood chip delivery modules can be installed through 180 degrees left to right of the boiler, which means they can be integrated into almost any location.

Wood chip boiler can heat one or multiple buildings


Solar contribution
Wood chip boiler and accumulator tank

Wood log and wood waste space heating

Fabbri

CO_2 friendly solution for heating workshops or factories

The Euroheat range of Fabbri wood burning workshop heaters have heat outputs from 28 to a huge 407 kW.

These innovative Hot Air Generators are suitable for the combustion of all types of dry wood and clean secondary wood waste Wood burns about 4 to 5 times more efficiently in an enclosed furnace, designed for the purpose, than on an open fire.

Enormous quantities of waste wood are sent to land fill each year, and for many industries which produce wood waste, paying to have it removed is money which could not only be saved, but put to good use.

Many companies produce or accumulate wood which can be burnt to heat large areas such as factories or workshops.

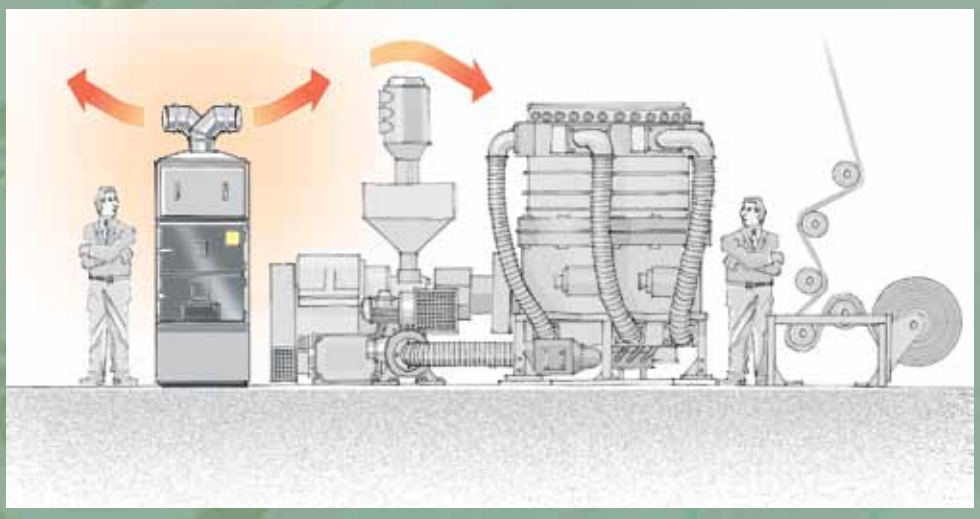
Space heaters are designed to consume any size or mixture of wood waste and once installed can provide 'free' hot air via the top mounted outlet ducts.

They are designed for simple easy operation with minimum maintenance and a long operational life. Add a few small pieces of dry wood and paper and light, adding additional wood as heat is required. The ventilation fan for distributing hot air starts and stops automatically. For summer operation the ventilation fans can be used for cooling air movement.

Ordinary maintenance means the removal of the deposited ashes by opening the door. Once or twice a year, perform a general cleaning of the internal heat exchanger.

The fuelling and heat exchanger are constructed of high grade stainless steel for long life, with no fire bricks to change.

The return on investment is quick and clearly visible. By using wood which otherwise would require costs to remove and alternative fossil fuel heating you will not only reduce operational costs but improve heating and reduce your CO^2 foot print.



The pros and cons

- Low purchase cost
- Simple installation at a low cost
- Ideal for heating workshops and factory spaces. CO^2 friendly
- Can supplement fossil fuelled heating
- Thermostatically controlled ventilation fan
- Summer time air ventilation option
- Low running costs
- Simple to operate
- Strong construction for long life
- Easy access for simple maintenance
- Fan flue models reduce chimney installation costs. Natural draught flue models available
- A range of sizes available from 28kW-407kW
- Multiple appliances can be installed to heat large applications

- Requires manual fuelling and attention
- Requires an electrical supply
- Requires at least bi annual maintenance
- Requires occasional ash removal

Operation

The fuel is loaded through a large separate upper fuelling door while the ash is removed through a lower access door.

Each model is fitted with a large capacity ventilation fan which passes air over the space heaters heat exchanger which is specially designed to be as efficient as possible. This results in lower fuel consumption and higher heat outputs.

Very simple, extremely efficient and easy to use. The ventilation fan is automatically activated by the onboard controls when heat is produced. At the end of the burning cycle the fan automatically switches off.

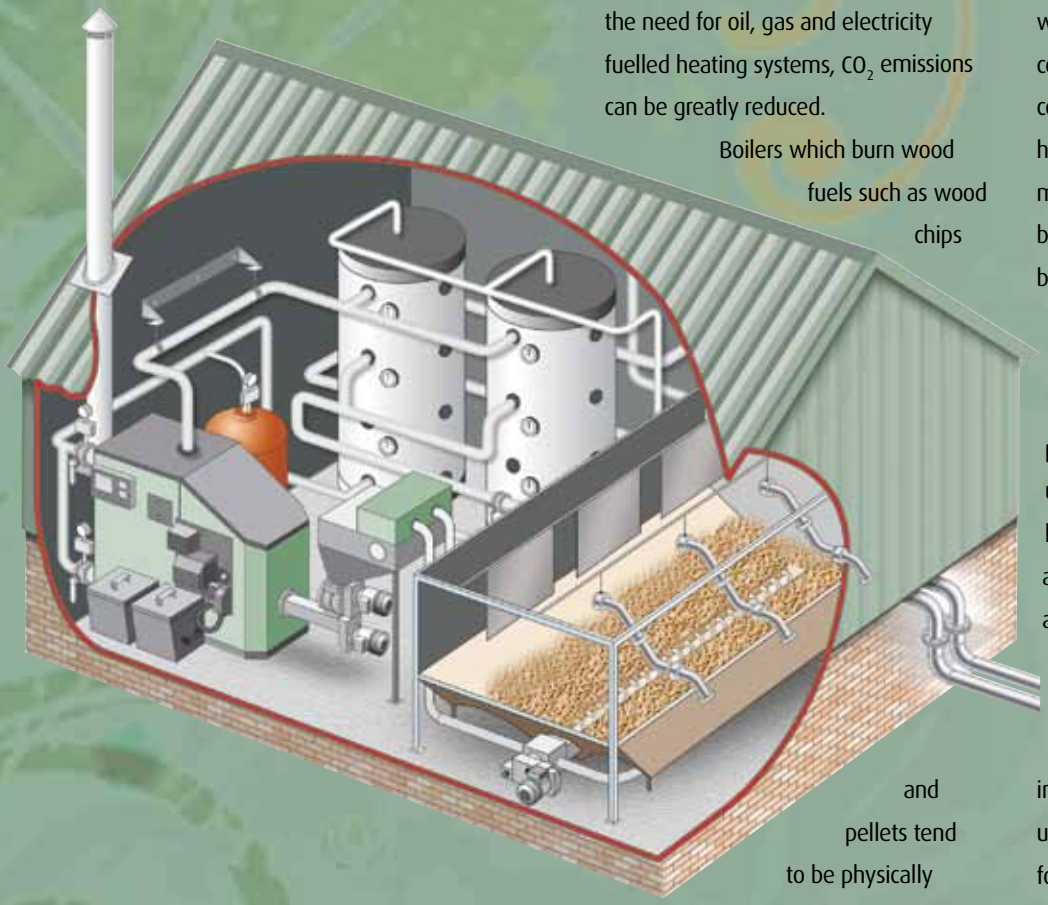
An override switch is included so during warmer weather the unit can be used as a cooling ventilation system.

District heating from a remote boiler house

Dedicated boiler houses

District heating is a term that applies broadly to any centralized system that provides heat and hot water to multiple buildings.

Dedicated central boiler houses can be the ultimate solution for a wood biomass fuelled district heating supply. The opportunity to provide all the hot water needs from a single wood biomass energy centre means that by replacing the need for oil, gas and electricity fuelled heating systems, CO_2 emissions can be greatly reduced.

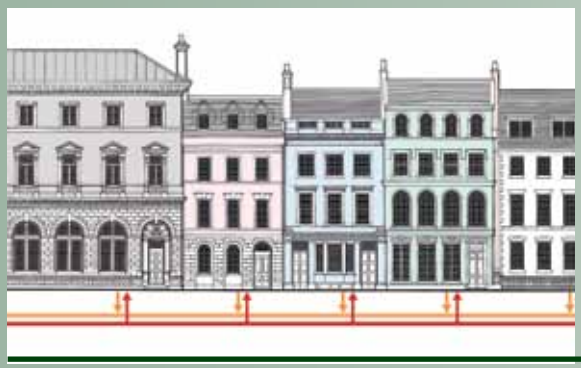


Boilers which burn wood fuels such as wood chips and pellets tend to be physically larger and more expensive than equivalent gas or oil boilers. This is partly as a result of the physical requirements for a high temperature combustion environment and storing the fuel. However as boilers get larger the economy of scale compared to gas and oil boilers becomes comparatively smaller, and so wood fuel becomes even more economically attractive, especially for installations on the scale of a few hundred kW.

A typical district heating installation consists of a highly insulated "heat main" of flow and return pipes distributing hot water past all buildings which might be connected. A junction point allows easy connection to each building, from which heated water can be taken from the main to a heat exchanger within each building. The heating circuit within the building is thus isolated from the primary heat supply. Any problems experienced within the property cannot affect the main supply and therefore other properties. Temperature measurement using a heat meter, allows the actual heat usage within each building, or even apartment, to be separately measured, and the heat consumed can be billed accordingly. In this way it becomes irrelevant who owns the property.

Once the heat is received into the individual building or dwelling, it can be utilized in a fairly conventional manner for space and domestic hot water use.

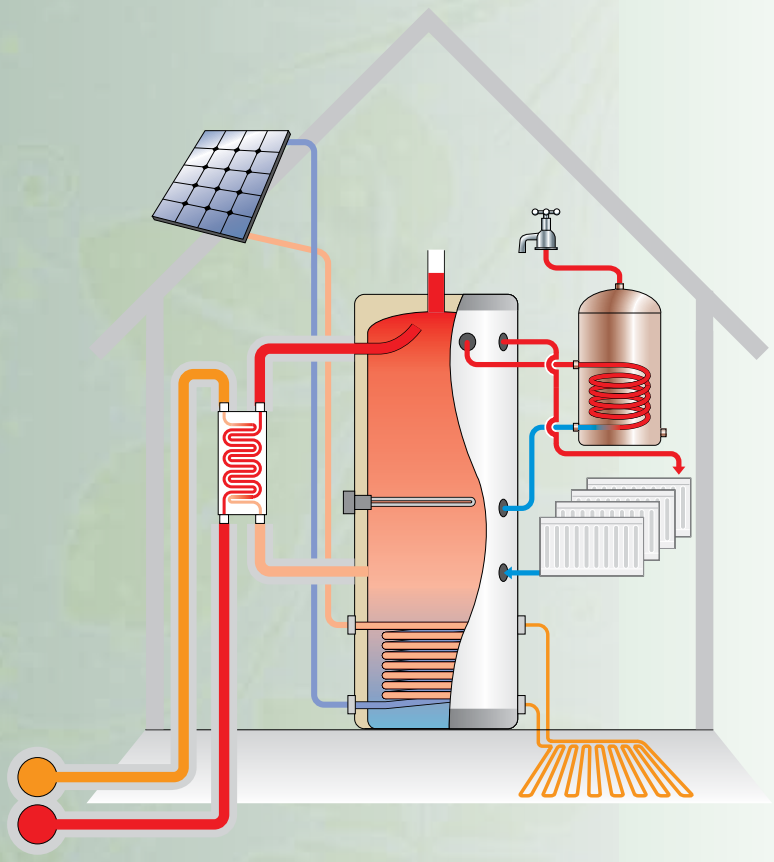
It is essential to work with a solution specialist such as Euroheat who can provide genuine experience and knowledge to deliver the most appropriate solution for the site.



The pros and cons

- Boilers in individual dwellings unnecessary
- No individual fuel stores required
- Fuel costs benefit from bulk purchase
- Individual control over energy consumption
- Shared maintenance costs or billing
- Heat meters can be installed to record usage
- Individual properties can incorporate other heat sources such as solar
- Capital expenditure can be provided by Energy Service Companies
- Installations suitable for wood chip and wood pellets or combinations
- High efficiency boiler operation over 92%

- High initial capital expenditure
- Requires electrical supply
- Requires regular maintenance
- Requires quality assured fuel supply



Installation

The remote boiler produces heated water which is stored in accumulators within the boiler house. These accumulators perform in a buffering capacity between the properties and the boiler. This ensures that for periods of peak demand energy is instantly available. As the temperature of the accumulators reduces the boiler automatically ignites to replenish and supply energy as required.

There are a number of ways in which the supply can be received. Smaller dwellings may be installed with a heat exchanger which transfers heat from the district circuit to the domestic circuit and can then be circulated around the house to provide domestic hot water and heating in a fairly conventional manner. Larger properties can utilize the supply to heat a thermal store from where the individual heating services are then supplied. This allows the opportunity for individual properties to supplement their own demands with a wood burning stove, solar or other alternative energy sources.

Wood biomass centralised district heating


HDG compact pellet boiler in purpose built remote boiler house for district heating

Wood logs

Every year, more wood is renewed than is consumed!

Useful facts

heating with logs

1kg wood (20% dry scale) generates 4 kWh
2.5kg of wood (20% dry scale) corresponds to 1 litre heating oil
Logs stacked (1 Rm) @20% Dry scale = 300-550 kg/m^3
1L Oil = approximately 10kW
1L Oil generates 2.676 kg CO^2
1,000 Litres Oil corresponds to approximately
5-6 Rm hardwood stacked logs
7-8 Rm softwood stacked logs
10-15 Srm wood loose

Abbreviations of cubic measures

1 Srm = 1m^3 wood (poured, loose delivery)

1 Rm = 1m^3 stacked wood (stere)

Water content and wood moisture

Wet scale	15% 20% 25% 30%
Dry scale	18% 25% 33% 43%

Wood	kWh/kg	kg/litre
Spruce	4.67	0.43
Beech	4.13	0.75
Pine	4.50	0.53
Fir	4.62	0.41
Oak	4.33	0.68
Ash	4.21	0.67

About logs

Hardwoods

Hardwoods, sometimes referred to as broad leaf are slow growing and deciduous. This means they are generally high density and burn slowly giving a steady heat output.

Softwoods

Sometimes referred to as conifers, are fast growing and evergreen.
This means they are generally low density and burn quickly giving a rapid high heat output.

Both hard and softwoods have similar calorific value per kg but the density of softwood can be about half that of hardwood which means that twice the amount of softwood is required in volume terms to produce the same heat output as hardwood.

Seasoning

Newly harvested wood contains a naturally high amount of water. Removing this water is known as seasoning. It is not possible to burn water. When burning wood the heat energy available must first remove the water before it can generate heat. The higher the water content the more heat energy is used removing the water resulting in far lower heat output. Wood logs should always have a moisture content of 20% wet scale or less before burning.

Storage

For best results logs should be split to allow the moisture to escape more easily, and stored off the ground in a dry covered space with plenty of air circulation. As a guide a 6" (150mm) log in the round will take at least two years to dry, split the wood and it is possible to dry the wood in one year.

Conclusion

A wood burning stove or boiler is good for the environment. You can burn logs with a clear conscience as burning wood is a CO_2 neutral process. The CO_2 captured in the wood is simply released again, so the wood gives off the same amount of CO_2 as if it were decomposing on the forest floor. Many years of development work have made Euroheat's range of wood burning equipment extremely efficient, enabling them to utilize nearly all the energy in the wood. The smoke coming out of the chimney consists mainly of water vapours, resulting in a minimum strain on the environment.

Wood pellets
Compact clean wood fuel

About pellets – What they are

Pellets are made of 100% natural wood. Shavings and sawdust are compressed under high pressure and pressed into small cylindrical rolls and held together by lignin, contained naturally in the wood. This results in a clean, convenient fuel with a high calorific value and very low ash content (approximately 0.2%).

Pellets are of consistent quality, are very dry and can be stored in a small space. Because of their purity they burn so cleanly that the residual ash can even be used as garden fertiliser.

In terms of energy cost, pellets compare favourably with other fuels.

All of these facts are what makes the most convenient of all wood fuels such an interesting alternative in terms of both ecology and economy.

Ecologically safe

Pellets are a perfect part of the ecological cycle. They consist of natural wood and when burned only release the quantity of CO^2 that they previously produced in oxygen when growing as a tree. Wood pellets are a high quality fuel with a sustainable supply and also help to boost the local economy.

Delivery

Delivery methods include blowing through a tube from a delivery tanker directly into the storage bunker or silo. Pallet delivery of large sacks, or small sacks if fuelling a small hand fed hopper.

Storage

The provision of a dry store is required as it is important to keep the pellets from becoming wet during storage. Where an automatic feed is installed, a bunker is required from where the boiler feed system can draw its supply and should be positioned where deliveries can be easily made. The size of the store should be calculated to allow for the demand of the boiler and the frequency of delivery.

Pellet quality

A good quality pellet is very important. It will have a surface that appears smooth and shiny, uniform length and no dust. Poor quality pellets have longitudinal cracks, a high proportion of extremely long or short pellets and a high dust content.

Useful facts

heating with pellets

Wood pellets have a thermal value of approximately, 4.9 kWh/kg. This gives a kilogram of pellets roughly the same energy content as half a litre of heating oil.

2kg pellets = 1L Oil

650 kg pellets = $1m^3$

Wood chips

Sourced from standing timber or rotation coppice

Useful facts

heating with shavings and wood chips

Conversion factors

1 Srm wood chips =
approximately 65-75 Litres of heating oil
1 Srm wood chips = bulk density 210-250 kg/m^3
1 kg wood chips = approximately 3.4 kWh
1 Rm wood (stere) =
approximately 2.0 Srm wood chips
1 litre of heating oil = 10 Kwh/litre
1 litre of heating oil gives off 2.676 kg CO_2
These specifications relate to softwood with
size G30 and water content w30.

Wood chip grades (according to water content)

w 20 air-dried w < 20%
w 30 storable w 20-30%
w 35 limited storability w 30-35%
w 40 moist w 35-40%
w 50 freshly cut w 40-50%

Wood chip grades (according to piece sizes)

G30 fine chippings less than 3 cm
G50 medium chippings 3 - 5 cm

Water content and wood moisture

Water content	50% 40% 30% 20%
Wood moisture	100% 65% 45% 25%

Abbreviations of cubic measures

1 Srm = 1m3 wood (poured, loose delivery)
1 Rm = 1m^3 stacked wood (stere)

About chips

Wood chips can be made from waste wood, brush, saplings, tree waste and standing timber from logging operations, and from forestry and roadside maintenance. Wood chips are normally between 2 and 5cm in length and produced to create a chip rather than a sliver.

Ecologically safe

Fuel growing methods, such as brush and coppice farming can produce ideal wood for chipping on a sustainable basis with a very high yield per acre and a short cycle. Coppicing can be mixed with conventional timber forestry to maintain an ecological balance.

Delivery

Chips can be transported and unloaded by tipper truck, auger or blown delivery. Because they are generally available locally, long distance haulage, packaging and energy consumption is reduced.

Storage

Wood chips should be stored under cover to prevent wetting, however good airflow is necessary to disperse water vapour and minimize the chance of composting and mould formation. The local chip store to the boiler will be sized to allow operation without regular reloading which suits the installations requirements. Reloading of this store can occur by direct delivery or from local on site storage.

Wood Chipping

Wood chippers cut across the grain by the action of a set of sharp blades set round the surface of a disc. Disc chippers have hydraulic powered feeding rollers which draws the wood in between the cutting blades and an anvil set to give a small working clearance for rotation. Often screens are fitted to grade the chip size so it conforms to requirements. Wood feed is either by hand or by a hydraulic loader when done on an industrial scale.

Wood chips can be provided directly from a fuel supplier ready for use. If local wood stock is available this can be chipped on site by locally owned machinery or by local contractor. If produced locally the wood chip would normally be stored in a covered well ventilated store and transported to the boiler chip store as required.

Secondary wood waste

Using wood that would otherwise go to land fill

About wood waste

Using waste wood or wood from clean manufacturing is a good fuel option. The Euroheat range of Fabbri wood burning workshop heaters for example, can burn any waste wood providing it is not painted, vanished or contains preservatives.

It is estimated that each year up to 420,000 tonnes of waste wood is produced by households, or deposited at civic amenity sites in the UK. Packaging (pallets and crates) produce a further 670,000 tonnes, and construction and demolition 750,000 tonnes.

Wood waste has some features that mean it should not be ignored;

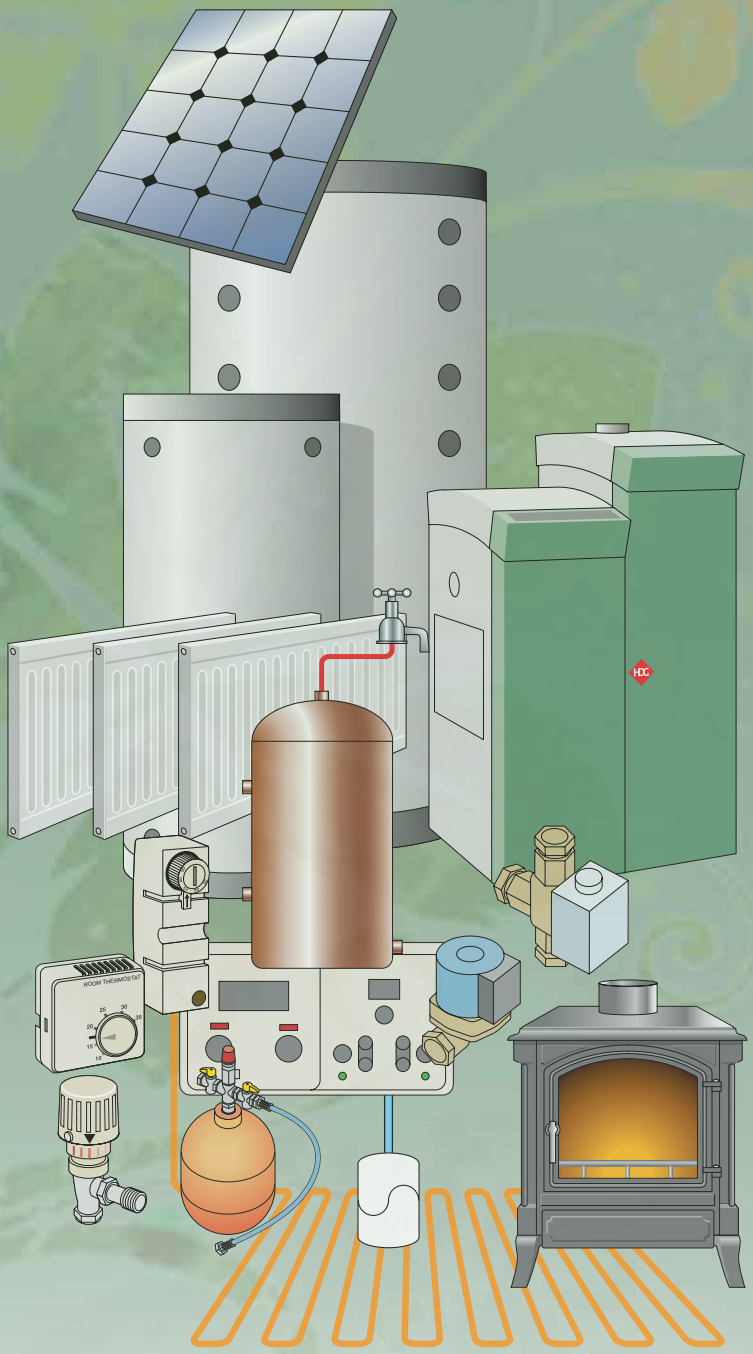
- It is biodegradable, and so can contribute to greenhouse gas production if allowed to rot in landfill sites.
- Often, it is in excellent condition, and would therefore make ideal fuel, rather than simply being thrown away.
- Disposal costs are of relevance to the commercial sector in particular, and as with any other waste material, reusing or recycling will save a company money from the cost of disposing and heating fuel costs.
- Better grades of wood are suitable for chipping for fuelling boilers, and lesser types for producing kindling wood for resale.

Ecologically safe

Waste wood is as safe as any other wood fuel, particularly if burnt in a boiler designed to give a clean and efficient burn. Euroheats HDG log burning boilers being a good example.

- Recognise and use the potential of waste wood.
- The operators of a wood heating system can influence the efficiency and pollution output of the system considerably.
- Wood should be well dried and log wood should be split.
- Waste wood which is dirty, decaying and very wet requires a lot of energy to dry and can therefore only give off less heat. It also shortens the service life of the boiler. Your boiler only attains its maximum heating power, and minimum emissions with dry material.

Summary



Is it for you?

We trust this publication has been informative and an interesting introduction to biomass.

At first it may all seem a little confusing and complicated, but it doesn't have to be. Thermal stores, accumulators and buffering, what does it all mean?

Like any system the secret is in choosing the one right for you, whether it is a completely new installation or linking biomass with an existing system and appliances.

The nature of burning biomass differs from other on/off systems by generating heat, storing the heat, and then distributing it as and when required. This is better for the efficiency, the appliance and the environment.

Euroheat specialist retailers and installers along with our technical team can offer advice on the most appropriate fuel and appliance types, whether it for a small log burning room stove or a complete district heating system and design balanced systems which will meet your requirements.

We are here to help
Make it simple

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Comfortable heating. With wood!

Conclusion

The future of biomass..

There are many good reasons for choosing wood biomass as the heat source of the future.

Renewable heat means greater energy security for the UK at a time when a business-as-usual scenario will leave the UK dependent on imports for 80% of its natural gas requirement by 2020. The UK's entire Renewable Energy Strategy, covering heat, electricity and transport is estimated to reduce fossil gas imports by 20-30% by 2020. Biomass will play a major role in this reduction.

The technologies involved are proven and available, and in most cases have been used for many years. The great diversity of renewable heat technologies means that renewable heat can work in almost any situation, making it an attractive option for the 2 million homes off the gas grid, where heating options are more limited and more expensive.

Renewable heat avoids emissions associated with the generation of heat energy from fossil fuels.

The increasing demand for sustainable wood fuel will also provide an incentive for active investment and management of UK woodlands, allowing for greater biodiversity. Ambient technologies like solar thermal are already popular and make up the great majority of micro renewable installations in the UK today, and integrate easily into biomass systems.

Renewable Heat Incentive (RHI)

The governments RHI will pay a fixed amount per year to those who install renewable heat equipment, such as wood fuel boilers. Payments will be made either on the exact amount of heat produced, or on the amount it is anticipated the installation will provide.

See www.euroheat.co.uk/rhi for more details

We trust this publication has been informative and created an interest in our products and services of the biomass alternative.

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This brochure has been created by Euroheat. We have made every effort to ensure correct representation. However`only a guide. All installations conform to current building regulations and
installed by competent persons.

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Euroheat operate a continuous development policy and specifications may have changed since the production of information.
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