

BIOMASS



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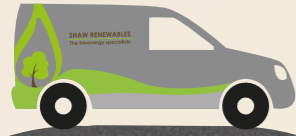


SHAW RENEWABLES
The bioenergy specialists





Our passion is to see homes and businesses across the UK heated with sustainable, carbon neutral fuels.



Our engineers install commercial and domestic heating systems throughout the UK



We specialise in the design, installation and maintenance of bespoke biomass heating systems that are both planet and pocket friendly.

We guarantee all of our workmanship for 2 years.



As members of MCS, RECC and HETAS we are held to the highest standards of workmanship, proficiency and customer care.



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BIOMASS

THE SUPER FUEL



90% less
Throughout its life cycle, biomass fuels emit roughly 90% less CO₂ than natural gas

Reduce 
your fuel bills by up to **79%** when switching from electric to biomass heating

Locally sourced and locally produced, Sustainable fuels

Biomass is material gathered from living organisms, such as plants. One of the most common sources of biomass for heating is wood.

Wood biomass fuels are available in three forms - Wood Pellets, Woodchip and Logs.

Taking control of your energy costs...

Owners of woodland can take advantage of their stock, creating free biomass fuels on site and enjoy £0 heating bills!

Carbon Neutral...

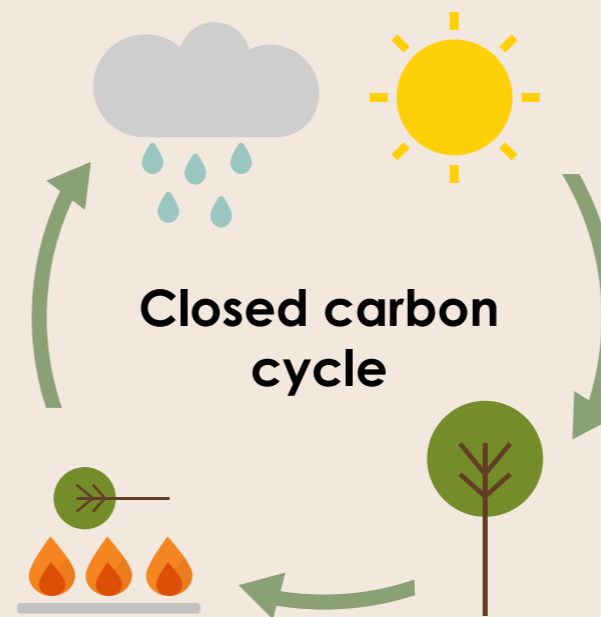
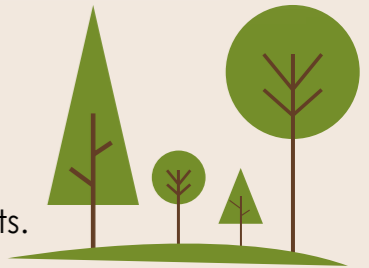
Trees absorb CO₂ from the atmosphere, retaining it until it is released through natural decomposition or burning. New trees are planted to create a sustainable and carbon neutral process.



MYTH BUSTING BIOMASS

Myth - Biomass promotes deforestation.

Truth - The UK government have put into place regulations that ensure any biomass fuel provider must source their wood from sustainable sources. Grade 1 quality wood pellets are created using waste timber and responsibly farmed wood and conforms to the latest European Standard, ENplus which assesses the whole supply chain, guaranteeing customers receive premium quality wood pellets.



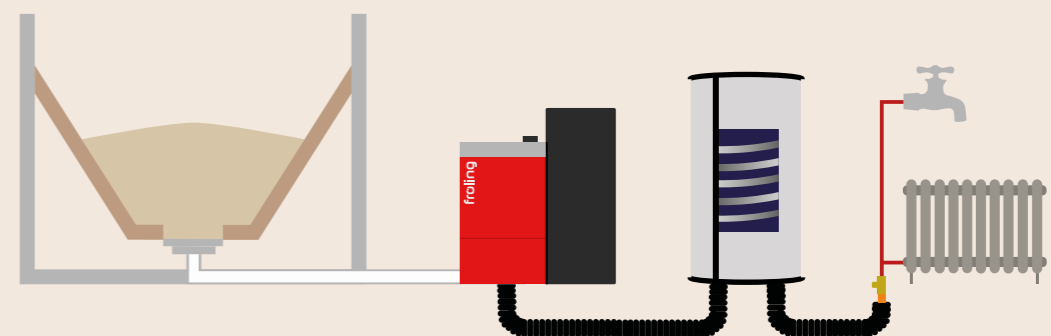
Myth - Burning wood releases more carbon into the atmosphere, so is no cleaner than fossil fuels.

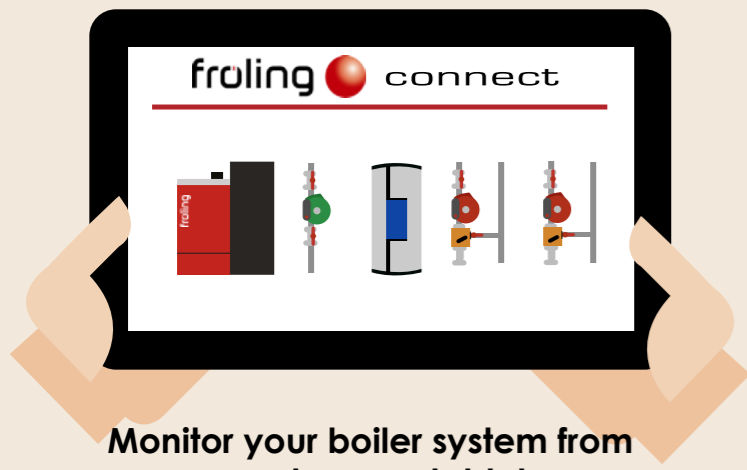
Truth - All organic matter releases carbon into the atmosphere, whether it's being burnt or decomposing. When burnt, fossil fuels have no means to counter balance the carbon emissions they release. Wood biomass only releases the carbon it has absorbed and retained during its life and the responsible production of biomass fuels ensures trees are planted to replace harvested wood.

This creates a closed carbon cycle, absorbing and releasing carbon over decades, making it possible for your heating emissions to be carbon neutral within your lifetime.

Myth - Biomass boilers are hardwork

Truth - For many, the concept of burning wood to create heat or electricity conjures images of open fires and cast iron wood stoves sat in fire places having to be stoked and topped up every hour or so. Friling wood pellet and wood chip boilers are fully automated, feeding fuel from a store into the combustion chamber of a boiler via a suction hose or auger feed. This automation allows the system to function 24/7 without the need for daily labour, a simple emptying of the ash bin, at the most, every few weeks when prompted by the boiler itself is all that is required from the user.





Monitor your boiler system from your phone or tablet...

Froling's monitoring software enables you to control their world leading boilers via a computer, tablet or smartphone; Shaw Renewables can also monitor your system remotely, giving you peace of mind that where ever you are, your boiler is running smoothly.

Commercial finance secured against the installation itself...



We work with industry leading finance providers who offer competitive interest rates

Your business doesn't sleep, so our comprehensive service packages offer you 24hr technical support and remote monitoring.

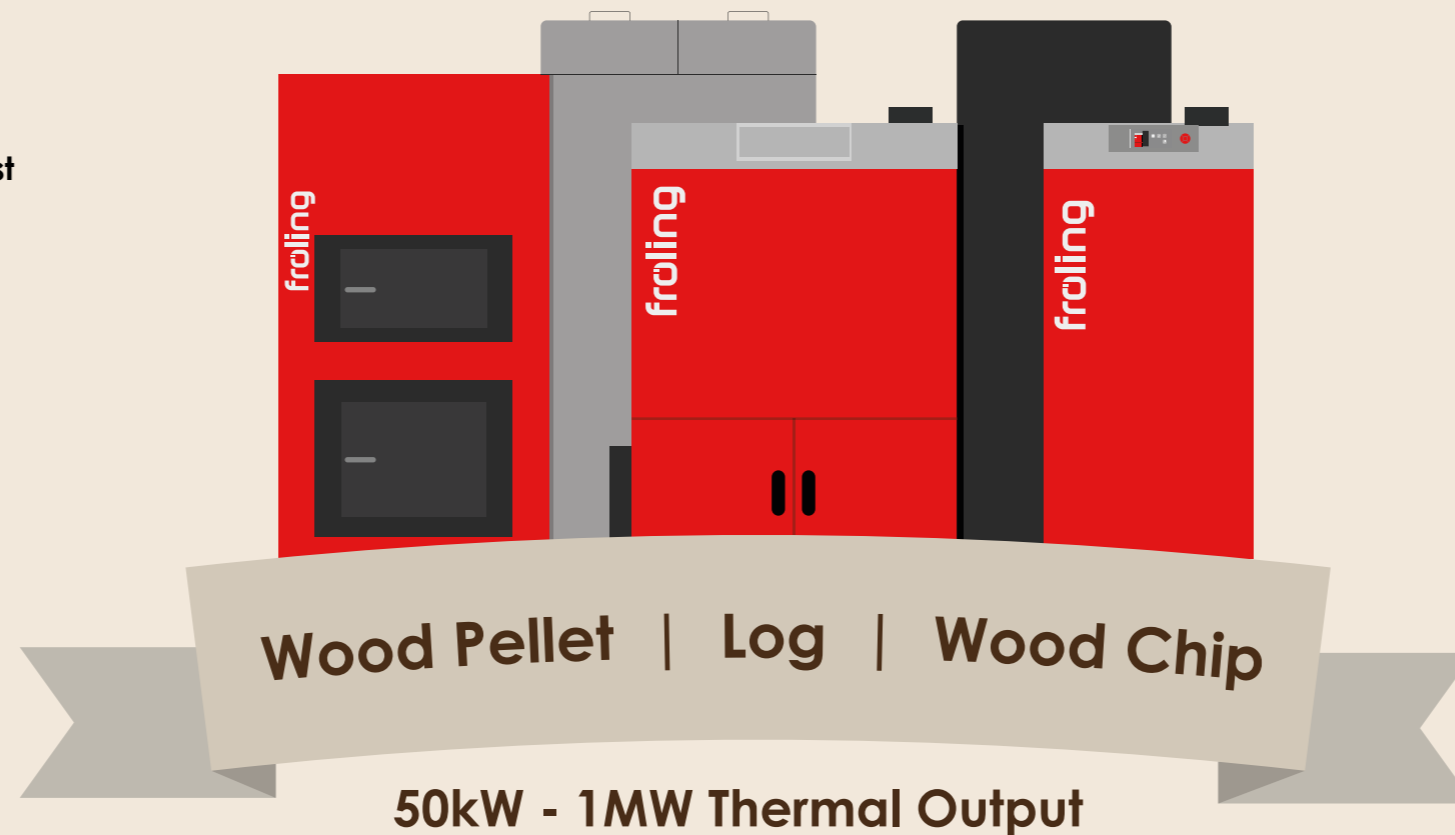


Designed to meet your needs



Our skilled engineers design bespoke systems that are reliable, run efficiently and are tailored to your needs.

THE COMPLETE WOOD FIRED HEATING SOLUTION



Turnkey solutions that work for your business

Each system we create is intelligently designed, skillfully installed and delivers quality every time.



REDUCE YOUR FUEL COSTS



Buying locally sourced and locally produced British fuels can substantially reduce costs and put you back in control of your fuel bills

CUT YOUR CO² EMISSIONS



Biomass fuels such as wood pellets, woodchip, logs, wood waste and miscanthus are all carbon neutral .



INCREASE REVENUE

With RHI payments lasting 20 years and a return on your capital investment within 5-7 years it's easy to see where a profit can be made.

For more than 50 years, Fröling have specialised in the efficient use of wood as a source of energy. Today the name Fröling stands for modern biomass heating technology. Fröling firewood, wood chip and pellet boilers are successfully in operation all over Europe. All of their products are manufactured in house at factories in Austria and Germany.

AWARD WINNING P4 PELLET



The P4's compact design allows for easy positioning, even in a confined space. And the new lambda-tronic P3200 control system is extremely easy to operate – **it takes care of everything, and all functions including remote monitoring can be controlled using a smartphone or computer.**



When developing the P4 boiler particular attention was devoted to energy efficiency. This was impressively confirmed when Fröling was awarded the environmental label 'Blue Angel' and the Austrian ecolabel for this boiler. **The pellet boiler P4 uses little power and keeps the operating costs low.**

S4 TURBO - LOG



T4 - WOOD CHIP



Biomass heating systems are generally comprised of:

- Biomass Boiler
- Buffer tanks
- Expansion vessel
- Fuel Store



Although the plant equipment for biomass heating is much larger than domestic boilers, systems can be designed to fit your needs. Outbuildings and workshops can be modified to house an entire plant or in some cases, use remote buffer tanks where the boiler and other large items can be located across the site.

The Shaw Renewables Ltd. Heat Pod is ideal for those who do not wish to use existing internal space. A prefabricated building, the Pod is built offsite by the Shaw Renewables Team then delivered and connected once ground-works are completed. In most cases this eliminates the need for planning permission and long periods of disruption on site.



Buffer tanks are vessels that store large volumes of heat energy. A biomass boiler passes heated water to the buffer tank where it is accumulated and then fed into central heating and domestic hot water. They eliminate short cycling, resulting in reduced fuel consumption, increased efficiency and an extended boiler life.

All Fröling tanks feature a special later conductor for precise temperature layering, which is crucial for optimal functioning as it ensures that as much energy as possible can be reused.

The special developed later separator allows inch-perfect temperature layering and guarantees maximum energy yield and low running costs.



Heating and domestic hot water is delivered via **pre-insulated mains pipes** which are installed underground. High performance PE foam surrounds the leak-proof core to ensure minimal heat loss as the water travels from building to building.



Fuel Store options are varied, whether pre-fabricated or tailor made, there is a solution for all biomass systems. Large weather proof metal silos and underground stores make use of outdoor space where as bagged silos and purpose built stores are for indoor use.



With over 40 models of biomass boilers and more than 10 models of buffer tanks, there is no "one-size-fits-all" philosophy to a Fröling installation.

A bespoke system designed and installed by Shaw Renewables Ltd. will produce the right amount of heat for your needs, so there is no energy waste or excessive fuel consumption.



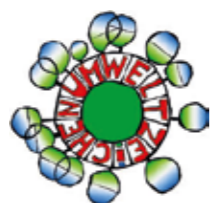
At Shaw Renewables Ltd. we invest our time and money to ensure our engineers are qualified and trained to the highest standards.

Our engineers are certified Fröling commissioning engineers - **trained by Fröling at their head quarters in Austria.**



AWARD WINNING TX WOOD CHIP AND PELLET

Convenient, long-lasting, economical and safe: **This boiler is suitable for burning both wood chips and pellets** thanks to its fully automatic smart operating system. Due to the well-planned and compact design the boiler needs very little space. The tried-and-tested engineering system ensures an optimum energy consumption.



Features an automatic tipping grate
Advantages:

- automatic self-cleaning
- economical fuel consumption
- automatic ignition using residual embers

The Renewable Heat Incentive

The Renewable Heat Incentive (R.H.I) is the world's first long-term financial support programme for renewable heat.

The R.H.I pays participants of the scheme to generate and use renewable energy to heat their buildings with the aim of encouraging the uptake of these technologies.

Increasing the generation of heat from renewable energy sources (instead of fossil fuels) reduces greenhouse gas emissions - this is essential to the UK meeting targets set out by the EU for reducing the effects of climate change.

Payments vary according to the technology you install, the heat your system generates and tariff rates.

Tariff rates are linked to the Retail Price Index, so represent a real return on investment.

Commercial Eligibility

The plant must provide heat for at least one eligible heat use: heating a space, heating water or carrying out a process, where the heat is used within a building or used outside a building for drying and/or cleaning on a commercial basis. The heat cannot be wasted and must be used for a prescribed purpose.

The installation must not solely provide heating to single domestic premises.

The system must only use solid biomass as it's primary fuel source.

The R.H.I covers a large range of commercial installations, from a 10kw pellet boiler in a small pub to a 10,000kW commercial heat plant.



THE HEAT POD

The Shaw Renewables Ltd. Heat Pod is a pre-fabricated plant room that delivers quality and power with minimum disruption to you and your business.

Ease

Housing the entire plant room as well as a built in fuel store, the Heat Pod is constructed off site and delivered ready to connect. In most cases the containers can be installed without the need for planning permission.

Large capacity fuel stores can facilitate long periods of time between refuelling deliveries.

Reliability

At Shaw Renewables Ltd. we use industry leading products to supply you with a biomass system that will stand the test of time.

For more than 50 years Fröling have specialised in the efficient use of wood as a source of energy.



We understand that the efficient use of space is important to your business which is why our Heat Pods can come fitted with Fröling's monitoring software enabling the system to be placed anywhere on site.

With Fröling connect your heating system can be monitored and adjusted from any location at any time via PC, tablet or smartphone.

Flexibility

We design and fabricate each Heat Pod to fit your individual needs.

From basic but reliable, water tight shipping containers to purpose built units each Pod is intelligently designed with perfectly matched components.

We consider our client's requirements at every step of the design process, which means the biomass system your Pod will house is perfectly sized to efficiently meet your heating and



This booklet was brought to you by



SHAW RENEWABLES

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