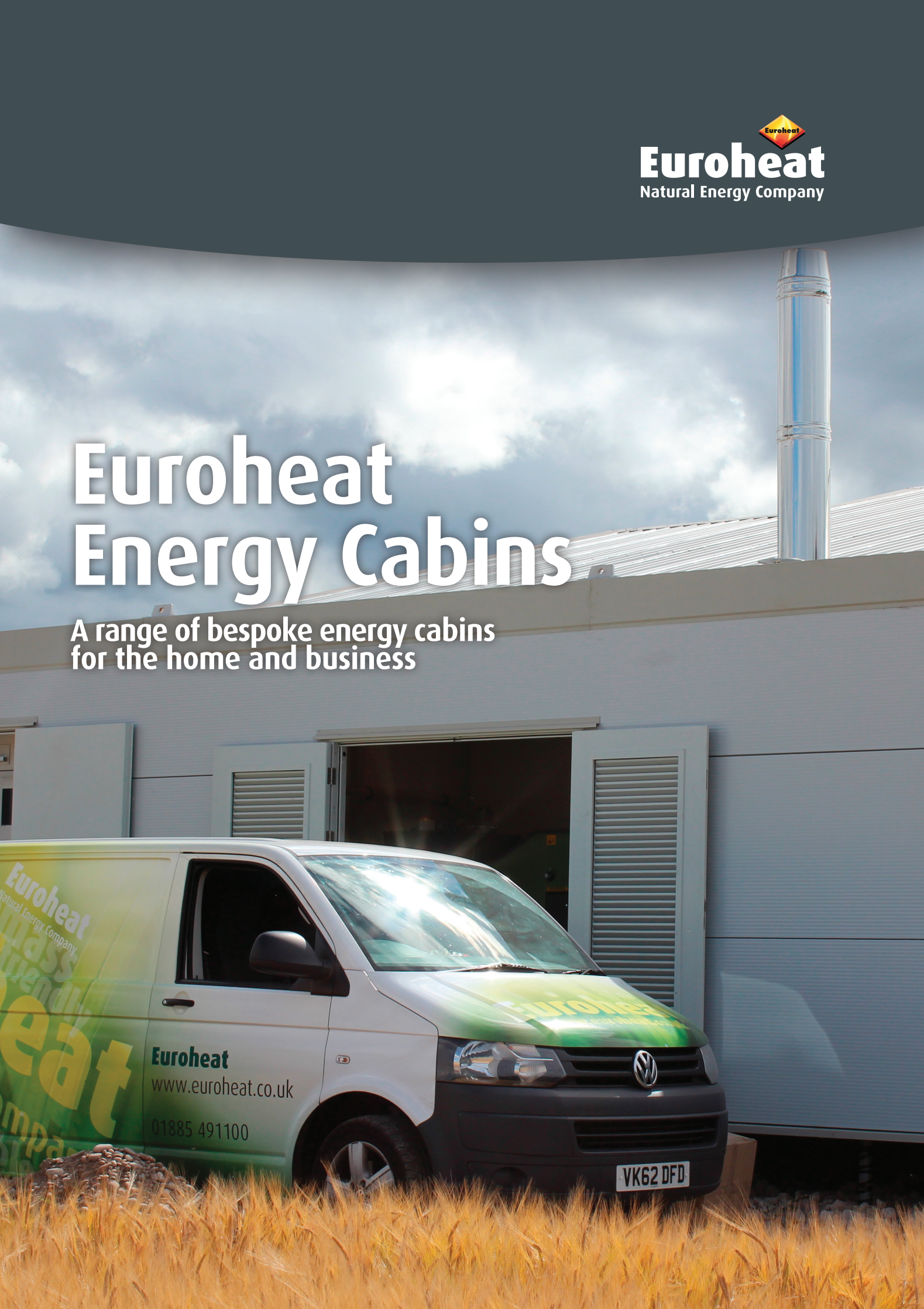
Euroheat
Natural Energy Company

Euroheat Energy Cabins

A range of bespoke energy cabins for the home and business




Euroheats biomass
energy cabins offer you
Freedom, space,
and money.

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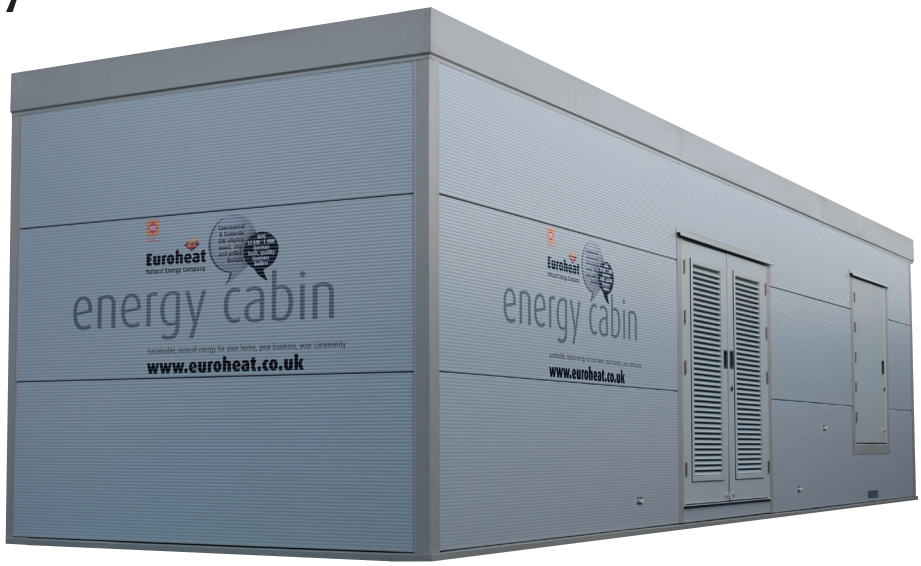
What is an Energy Cabin?



Energy Cabins are portable containers that house a wood biomass boiler system and store all in one. They make an ideal solution for many users because they are quick and easy solution to installing a new system that uses a sustainable, efficient fuel. The Euroheat Energy Cabin offers a complete cost effective biomass boiler house and fuel store solution ready to "plug in and go." It offers an easy and quick way of changing to renewable energy and lowering your carbon footprint. Euroheat Energy Cabins are complete biomass boiler houses incorporating everything required to provided hot water and heating. Included in the Energy Cabin are an HDG boiler,

pumps, all pipe work, fuel store and all electrical connections, if fact everything needed to provide hot water and heating.

The Euroheat Energy Cabin is design to be delivered to site preassemble on the back of a lorry, where it is lowered into position, normally on a pre prepared hard standing base. The Cabin can then be plumbed straight into the existing central heating system. As well as being quick to install Energy Cabins remove the need for costly and permanent building alterations and the previous heating boiler can be left in place to act as a back up if required. They are ideal for those who are limited for space in their existing buildings. These cabins can be wrapped with bespoke designs to disguise and hide or brighten and enhance.

Euroheat also offer a full maintenance package. This includes internet monitoring of the boiler, so we know of a fault before you do, operational servicing and an all inclusive parts and labour contract.

Euroheat Energy Cabins can offer powerful, energy efficient, flexible heating for a modest home to an industrial building with minimum interruption to your daly routine.

Innovative

RHI Approved

The Euroheat Energy Cabin is an innovative, efficient and powerful purpose built boiler room. A durable and robust cabin that has been fully fitted with biomass boiler, fuel store and associated pipe work and electric.

These quality built, insulated and quite Energy Cabins have been designed to last at least the life expectancy of the boiler; 25 years or more. Made from ultra modern materials, they offer a clean, bright interior with wrap options for the exterior.

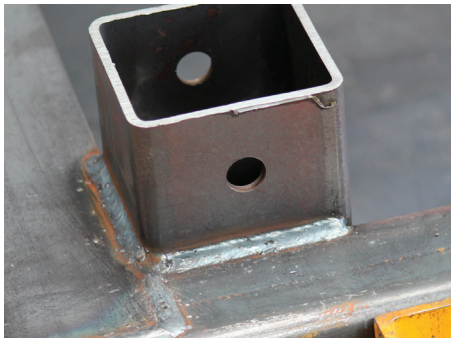
The Euroheat Energy Cabin offers easy installation; site the cabin, and connect to the heating system. There is no need for planning permission (in most cases) no alterations to buildings, plant rooms or changes to the existing heating system.

Each Energy Cabin is custom built specifically to your specification

right here in Herefordshire

Quality build throughout

Euroheat Energy cabins contain a complete, ready to run biomass heating system, including fuel store when delivered to site. This makes them an ideal solution for commercial sites because generally, they do not need planning permission, can up and running within hours.
They offer the opportunity of delivering a biomass heating solution tailored specifically to your sites needs rather than being restricted by internal space requirements.
Euroheat Energy Cabins come in four sizes with a range of boiler, fuel and storage configurations. They offer the advantage of easy fuel delivery directly to the fuel store. When possible everything is automated, from the fuel supply to cleaning and we will show you how to make the most of the system benefits and maximize efficiency.
They can be incorporated easily within an existing heating system, used as a replacement system (sometimes even keeping the old boiler system as backup if required) or used as a supplementary or backup heating system.
Euroheat Energy Cabins are made to order and designed to fit the size of boiler, fuel feed and fuel store that meets your needs. A range of finishes are available to choose from in order sympathize with the existing property. Installation of a heat cabin is quicker and easier than an internal system and as with all our boiler installations we offer a full maintenance package. This includes internet monitoring of the boiler, so we know of a fault before you do, operational servicing and an all inclusive parts and labour contract.



Overview

Delivered complete with all fixings and fittings installed.

Fits into existing system or can be used as a stand alone system.

Four cabin sizes with multiple variations.

Multiple configurations of fuel, fuel delivery, boiler size, heat storage, control.

Each is cabin custom built to your specification.

Planning permission is often not required.

Will heat up to 200 kW form a single Cabin

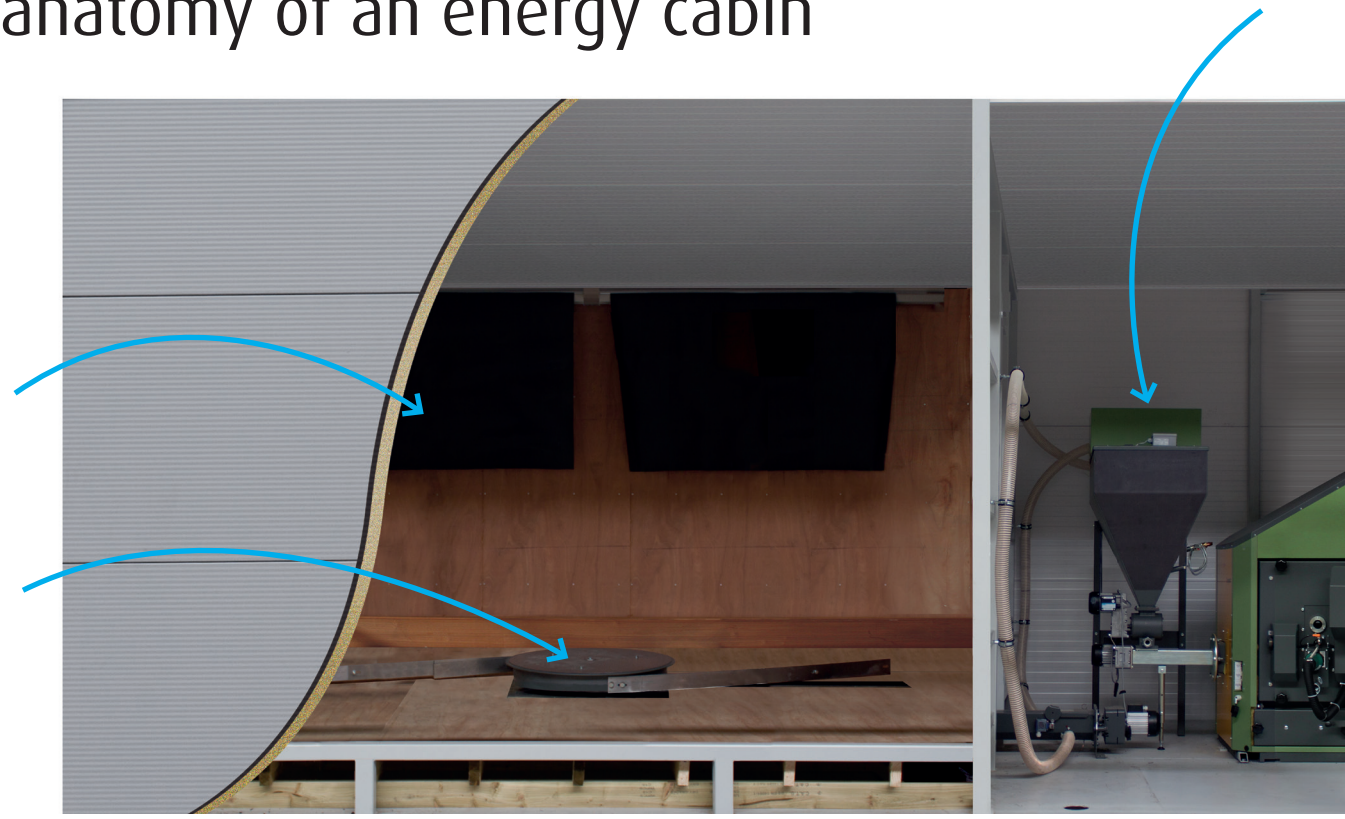
Cascading of Energy Cabins to provide larger power source.

Cabins are extremely well insulated, very robust and designed to last the lifetime of the boiler, (25 years).

Suitable Domestic and non domestic
15 kW to 1 MW.

Eligible for the Renewable heat incentive.

The anatomy of an energy cabin



A full range of biomass boilers are offered in the Euroheat Energy Cabin, each one bespoke to the customer's requirements. Euroheat can assist in selecting the optimal combination of biomass boiler, fuel type, fuel feed system and storage bunker for the specific site requirements.
The cabins are purpose built in Herefordshire, with 4 cabin sizes with varients from these. Built on a steel frame and chassie, clad with highly insulated composite steel made by Kingspan. The building envelope is UV resitent and comes with a base, leathergrain finish, in a range of colours. They have excellent corrosion resitance and are environmentally friendly and are maintenance free for up to 30 years. Importantly they are built to withstand the harshest of treatment including vandal attack. Euroheat also offer a range decorative wood or claddings in a comprehensive range of colours to blend in with the environment or choose from a range of wrap designs.
For industrial requirements we can cascade Energy Cabins to meet the highest energy requirements up to 1 mega watt.

Boiler house design

These boilers have been designed to offer the optimum performance while giving consideration to future maintenance requirements of the boiler. As the sizing and integration of the system is crucial, Euroheat offer a complete hydronic consulting design to ensure that the biomass boiler is appropriately sized and can be integrated into a new or existing heating system. Any of our boilers of up to 200 kW output can be incorporated within the design. Exact specifications will be dependent upon various factors such as the customer's requirements, size of container and the selected fuel type.

Boiler House Size

Euroheat Energy Cabins are available in 4 sizes from one to four, with several variants to allow for greater fuel capacity and larger boilers.

Construction

The solid base is the starting point of Euroheat Energy Cabins. Made from 50mm steel square tube it takes little imagination to see that it's robust construction will last a lifetime. Each part of the bespoke cabins are meticulously finished to offer a light, clean portable boiler solution that is far superior than any of its contemporary.

Integrated fuel storage

The fuel storage area will normally be incorporated within the same container and designed to maximise space and fuel feed efficiency. The most popular fuel type is usually wood pellets due to their consistency, and the fact that they offer a controllable fuel source, achievable due to their uniform nature. The high calorific value of wood pellets means that less storage space is required, an important factor in a restricted space. However, other alternatives can be considered and Ashwell Biomass can design bespoke alternatives and advise on suitability.

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Benefits

The Euroheat Energy Cabin offers a cost effective biomass solution with the benefits of:

- Hand built by craftsmen right here in Herefordshire.
- Each Energy Cabin is built only to order and to your exact specification
- Generous Renewable Heat Incentive (RHI) subsidy for useful heat generated of up to 8.3p per kWh for qualifying installations
- Ease of installation – 'plug in and go'
- Effective supplementary or back up heating system which can be switched on or off easily
- A portable solution - only a concrete plinth or pad is required and the container is easily removable
- Shorter lead times for planning
- Lower costs of planning
- A low cost alternative to expensive permanent building costs
- Quality build - built to last in excess of 25 years
- High quality boiler unit and associate parts

Made Herefordshire

Each Energy Cabin is packed full of innovative features

It is all in the detail

Euroheat Energy cabins has been completely design by Euroheat to house HDG Boilers. Built to the highest standards they also have a wealth of smaller, but clever features to make owning and using a Euroheat Energy Cabin a little easier.

The base and frame is made from steel offering great strenght and rigidity. It offers a superb platform for the boiler room.

Lifting eyes are provided for easy connection to crane and tether flue

The adjustable feet allow even the largest Energy Cabin to be sited perfectly square.

Pre insulated walls and roof panels offer not only weather proofing but also additional strength and are virtually maintenance free.

Exterior finish is extremely strong and vandal resistant they offer a clean, contemporary appearance that can be wrapped or clad.

The pitched roof has its own integral down pipe and has a large flat space in which to place solar panels if required.

High security double, lockable, steel doors allow easy access and light penetration. Additional doors can also be mounted on the opposite side.

The floor is painted, with a non slip paint as well as floor access to incoming heating mains and services.

Integrated pellet fill and vacuum tubes securely located behind end access door.

Wood chip and pellet Energy cabins come with their own fuel storage.

Mounting points for optional steps or ramp access.

The business case for turning to biomass

The green credentials on offer with wood biomass heating needs little introduction. They are an ecologically sound investment for the future, providing energy from a sustainable source without impacting on the environment. **They say to the world we care about your future.**
Today's biomass boilers however, need a little more introduction. Euroheat's range of HDG boilers bear little resemblance to boilers even from a few years ago. They are advanced, highly engineered pieces of equipment, built to work in extremes and last the test of time. But, within this strength lies a wealth of innovation. Filled with the latest technology and tuned to provide the highest possible efficiencies. With state of the art electronics constantly monitoring the system, to ensure a plentiful supply of energy.

HDG boilers are genuine workhorses, providing substantial heat, efficiently and at low cost from a range of boilers and energy cabins.
More surprisingly they require little in the way of intervention or maintenance across the whole range.

Automation is the key

HDG boilers are designed to be used with the minimum of human input. Using sustainable fuels to generate heat will drastically reduce company fuel bills and could see thousands of tonnes of carbon emissions offset.
Even the smallest of investors in biomass are offered not only reduced fuel bills, but also an impressive ROI. As an investment, combined with the Governments Renewable Heat Incentive and Euroheat's HDG German built boilers your heating requirements are resolved for the next 25 years.

Sustainability

By choosing either wood log, wood chip or wood pellet boilers for your Energy Cabin you know that you are using a sustainable fuel that has less impact on the planet than fossil fuels. By using a sustainable fuel that is completely natural and is many cases has proven substantially cheaper than gas, LPG or oil as well as then Governments RHI payments you can see why so many people are choosing wood biomass as their first choice for energy.

For the home

Energy Cabin and HDG

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Comfortable heating.With wood!

Euroheat Energy Cabins, are fitted with a German built, high quality biomass boiler from HDG. These highly efficient heating systems are common in individual buildings and district heating schemes throughout the United Kingdom with over 2000 successful installations.
HDG are renowned throught Europe for their quality biomass boilers. Founded in 1978 and still operated today as a family run independent company, HDG specialise solely in the production of high quality, modern biomass heating technology. Employing over 200 staff members, the company has an annual turnover in excess of €22m, and supplied over 3,100 biomass units in the last year.
HDG biomass boilers are computer controlled for optimum efficiency and are easy to maintain and operate. Wood log Energy Cabins are manually fed. Our wood chip, wood pellets are automatically fed into the boiler on demand. Biomass boilers tend to be physically larger than oil or gas boilers; and if you do not have the space or easy access for fuel delivery vehicles then an Energy Cabins is ideal solution.

Key Elements

Euroheat Energy Cabins consist of a number of key elements:

Fuel storage
Our Energy Cabins have on board space to store your chosen fuel type wood chip or pellet.

Fuel feed mechanism
Transferred the fuel to the boiler

Boiler
Powerful and efficient HDG biomass boiler

Expansion Vessel
Diaphragm pressure expansion chamber

Control Equipment
A range of control equipment is available depending on your needs

Dust Extraction
Dust separator and chimney assist fan to remove dust particles from chimney for clean emissions

Heat Storage
Accumulator for heat transfer, the best and most efficient way of storing your energy

Space is the overriding criteria for not installing a boiler within a building. Not only do you need to consider space for the boiler itself but also the fuel storage which often many take up several times more room than the actual boiler room itself. If you decided there is insufficient room for a boiler with your premises then a Energy Cabin may well be the answer. But there are other excellent reasons for installing a energy cabin.

- Providing primarily or secondary heating
- Can be placed near fuel delivery point
- Reduces disruption to the building when installing
- Extremely quick to install
- Easier to finance
- Guaranteed Euroheat build quality
- Customizable and completely bespoken
- Boiler house can be site many meters away primary building
- Perfect for heating multiple buildings
- Cascading of cabins to provide greater energy
- RHI approved

HDG Premium Quality

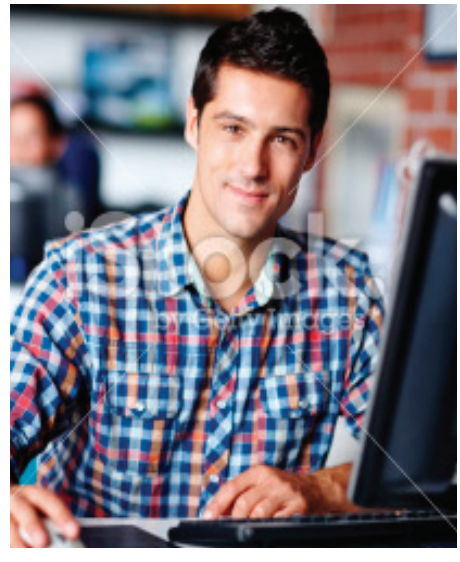
Flexible, dependable, reliable

Euroheat Energy Cabins are fitted with HDG wood burning boilers. They are unlike normal boilers, they offer the same services- heat and hot water on demand. The difference with an Euroheat Energy Cabin is quality and simplifying the installation of your biomass heating system. It is a real break through, making it easy for your complete heating solution to be delivered in one go. It simply arrives on the back of a lorry and is unloaded straight onto site, the larger models even come with fuel store and fuel delivery system built in. All you need to do is connect a cold water supply and a heating flow and return and electricity and you are up and running.

But exactly what can they heat?

Euroheat energy cabins can heat anything from a small two bed homes right through to industrial buildings, even shopping centres.
They come in four sizes. Energy Cabin size one to energy Cabin size four. There are also some variants to these sizes, as shown right. Each Energy Cabin is designed to fit into a general category. The category can be further enhance by the type of boiler installed into the Energy Cabin.
Generally a size one Energy Cabin will easily heat a domestic home. A size four cabin will heat an large commercial building. If cascaded, they will heat much, much more.
The Euroheat Biomass Energy Cabin can burn a choice of wood chip, shaving, pellet and split log. Thanks to its modular design, these cabins can provide heating capacities from 10 kW to 950 kW. An external boiler house is especially useful for clients looking for more flexible heating solution or where there is no adequate space for a modern wood heating system installation within their premises. The energy cabin is designed for use with all HDG heating boilers. Therefore, clients using log wood boilers can also make use of the practical boiler room. The smart contemporary external looks good in a garden or next to a commercial premises, and with a range of external wrap designs they can be disguised or enhanced to suit.
Euroheat Energy Cabins offer hot water, central heating, under floor heating to a single building or to several buildings (district heating).

Our cabins are made to order and designed to fit the size of boiler, fuel feed and fuel store that meets your needs. As with any biomass installation the sizing and integration of the system is crucial. Euroheat offer a full consulting design to ensure that the biomass boiler is appropriately sized and if required integrated into a new or existing heating system. Detailed specifications will be dependent upon the customer's requirements which can vary dramatically. Quick assumptions made early on can easily lead to incorrect specification.



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Energy cabin size 1 range

Suitable for small domestic and light commercial heating applications.
The cabin is supplied with a pitched roofed.

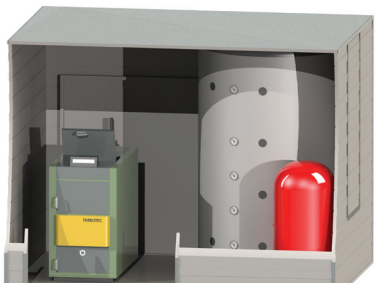
Energy cabin size 1
Energy cabin size 1 in standard design is suitable for manual loading of the HDG K series boiler with bagged pellets.

Energy cabin size 1A
Ideal for K series boilers with bulk fuel storage. Wood pellets are transferred by vacuum from a main store located in the cabin to the boilers local fuel storage.

Small domestic
Light commercial

Energy cabin size 2 range

Suitable for large domestic and light commercial heating applications. The cabin has a heavy substructure construction to withstand heavy boiler and accumulator loading.



Energy cabin size 2
For HDG log boiler (R series, Navora or Euro) or SHT TDA 15-40 (with manual pellet loading) ranges.

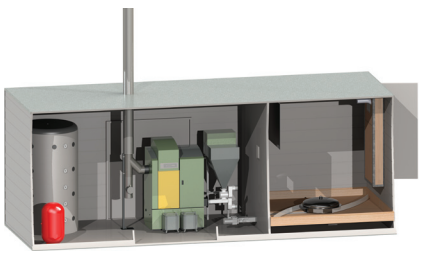
Energy cabin size 2A
For installation of HDG Compact 25-80 wood chip boilers with external fuel store. In this application the Compact 25-80 boilers are fitted with an FRA or combination of TFQ and FRA to bring wood chip to the boiler from a remote wood chip store

Energy cabin size 2B
For SHT TDA 15-40 with bulk pellet storage. Included with the cabin is a fuel store which houses an auger to vacuum transfer system.

Large domestic
Light commercial

Energy cabin size 3 range

Suitable for larger domestic and commercial heating applications where the HDG Compact 25-80 range of wood pellet boilers will provide the suitable heat demand.
Also suitable for HDG Compact 100-200 wood chip boilers with external fuel store.



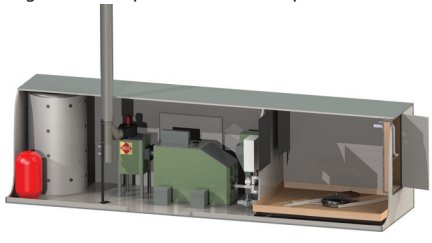
Energy cabin size 3
For compact 25-80 wood pellet boilers. Includes bulk pellet fuel store with HDG FRA-PSS auger- vacuum pellet transfer system.

Energy cabin size 3A
In this application the Compact 25-80 boilers are fitted with an FRA or combination of TFQ and FRA to bring wood chip to the boiler from a remote wood chip store

Larger domestic
Commercial

Energy cabin size 4

Suitable for very large domestic and mid size commercial heating applications, where the HDG Compact 100-200 range of wood pellet boilers will provide the suitable heat demand.



Energy cabin size 4 Cascade system
Energy cabin size 4 are purpose designed for linking together to create one large power source of up to almost 1 mega watt. (1000 kW). This casade system offers huge energy and fuel savings over a single large boiler.

Very large domestic
Mid size
commercial

Industrial

Energy cabin size 1

K Series wood pellet boiler

Energy Cabin size 1

The smallest version of the Euroheat Biomass Energy cabin range.
Size of approximately 1.8 meter wide, 2 meters long, 2.5 meters to the ridge.

The cabin is suitable for the K Series wood pellet boiler with manual fuelling to the boilers local fuel hopper

Energy Cabin size 1A

Size of approximately 1.8 meter wide, 4 meters long, 2.5 meters to ridge.
The cabin is suitable for the K Series wood pellet boiler with bulk wood pellet storage with blown pellet deliveries.

Energy cabin Size 1 with Energy cabin size 1

Energy cabin Size 1, complete with K Series boiler, manual refuelling system, fully connected with plumbing and chimney connections. Ready for connection to distribution system and electrical supply

Energy cabin Size 1A complete with K Series boiler, with bulk pellet storage refuelling system, fully connected with plumbing and chimney connections. Ready for connection to distribution system and electrical supply

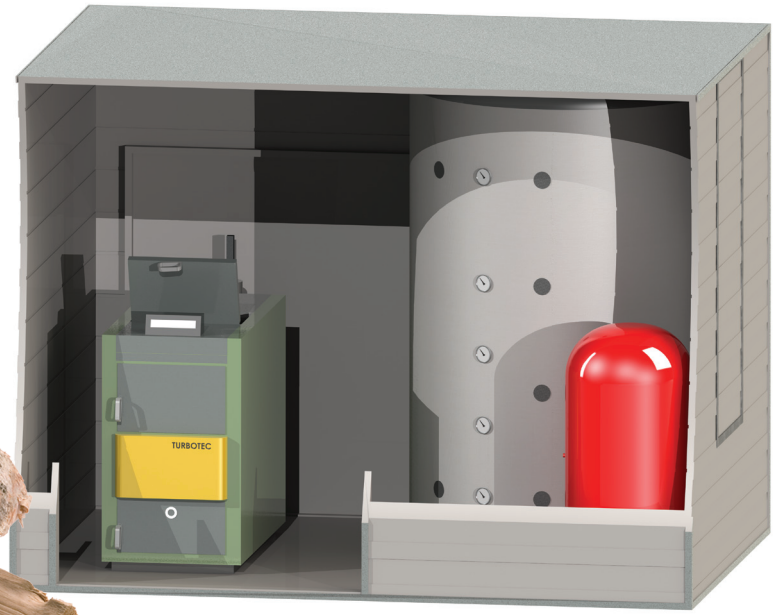
External cladding in variety of finishes, including wood, steel and painted

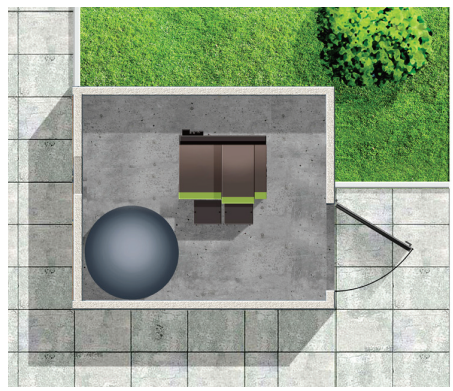
Energy cabin size 2

Log Boilers, R Series, Navora & Euro

Energy cabin Size 2 - Log Boilers

Suitable for log boilers (R Sweries, Navora or Euro) or SHT TDA 15-40 (with manual pellet loading). Electrically and hydraulically connected. Ready for external distribution and electrical connections. Roof and sides are clad in composite insulated panel. Includes 5 meters twin wall insulated flue with guy wire brackets.



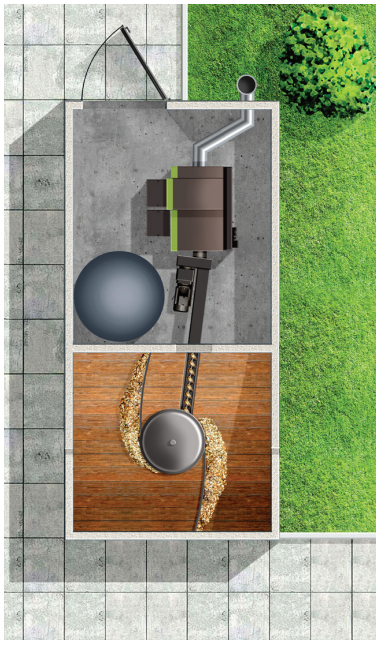


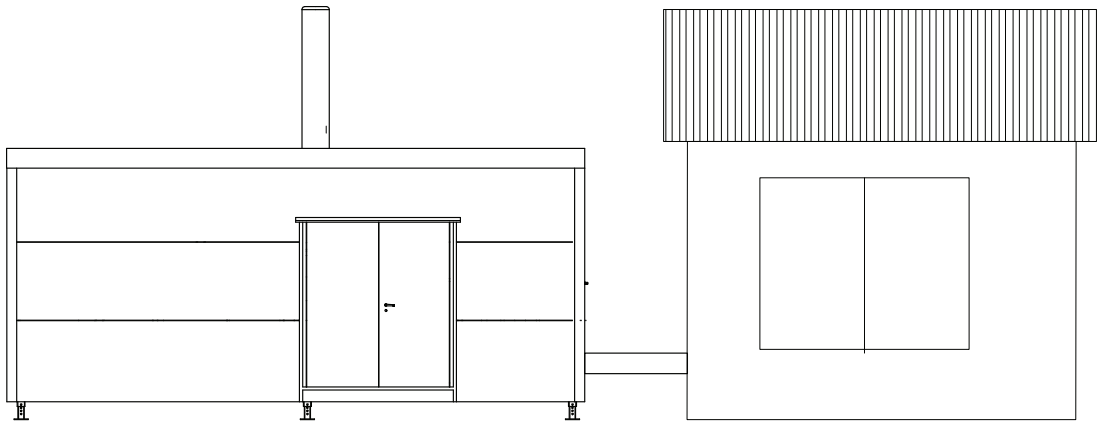
Energy cabin size 2A

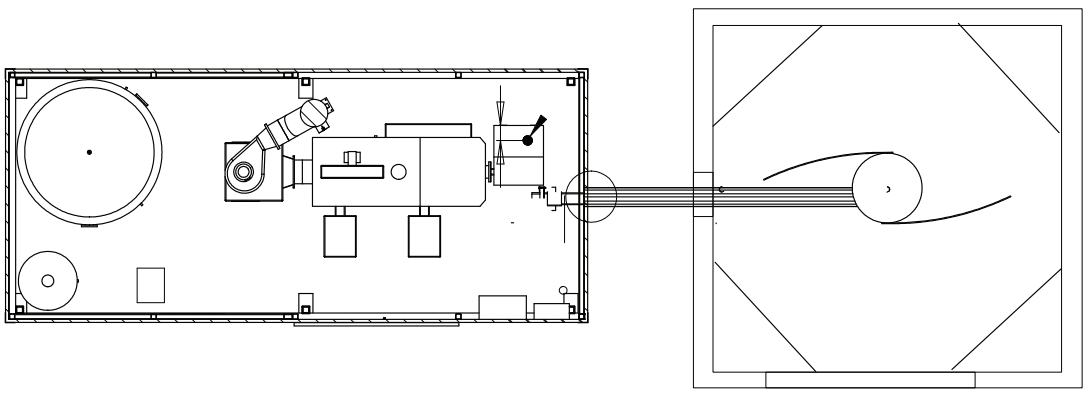
Compact 35-80 wood chip boilers

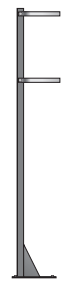
Energy cabin Size 2A - Compact 25-80 suitable for an external wood chip store

For Compact 25-80 wood chip boilers with external fuel store. In this application the Compact 25-80 boilers are fitted with an FRA or combination of TFQ and FRA to bring wood chip to the boiler from a remote wood chip store.
Electrically and hydraulically connected. Ready for external distribution and electrical connections. Roof and sides are clad in composite insulated panel. Includes 5 meters twin wall insulated flue with guy wire bracket.









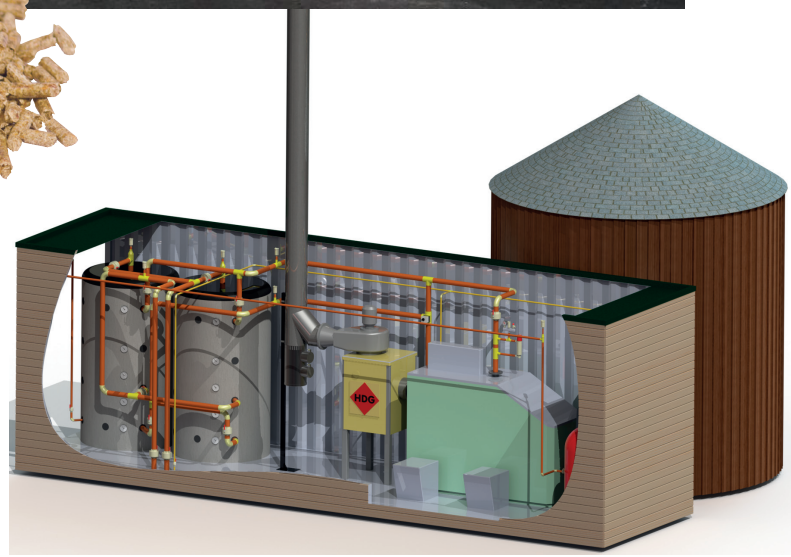
Energy cabin size 3

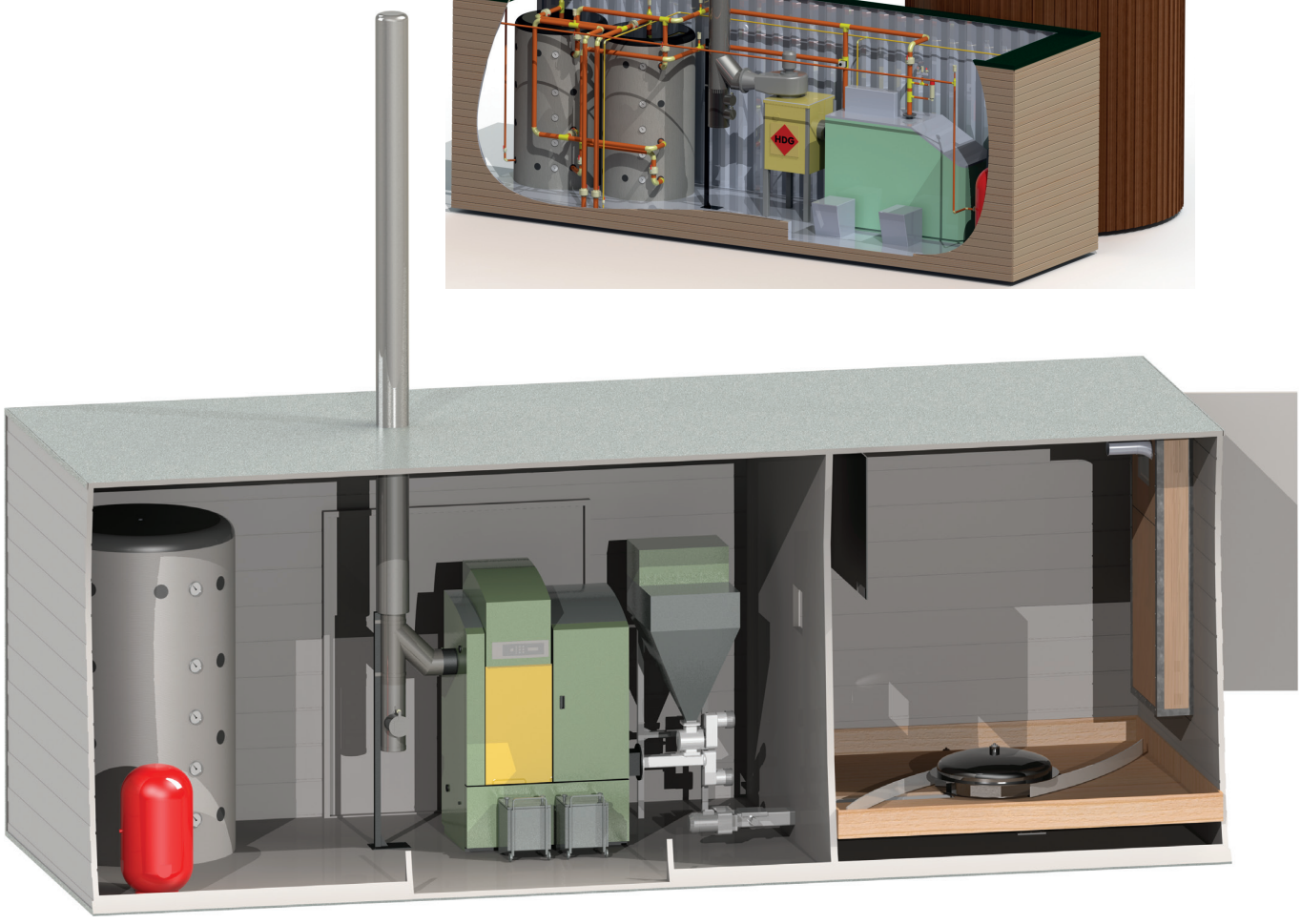
Compact 25-80 wood pellet boilers

Energy cabin Size 3 - Compact 25-80 with integrated pellet store

Compact 25-80 wood pellet boilers. Includes bulk pellet fuel store with FRA-PSS auger- vacuum pellet transfer system.

Electrically and hydraulically connected. Ready for external distribution and electrical connections. Roof and sides are clad in composite insulated panel. Includes 5 meters twin wall insulated flue with guy wire brackets.





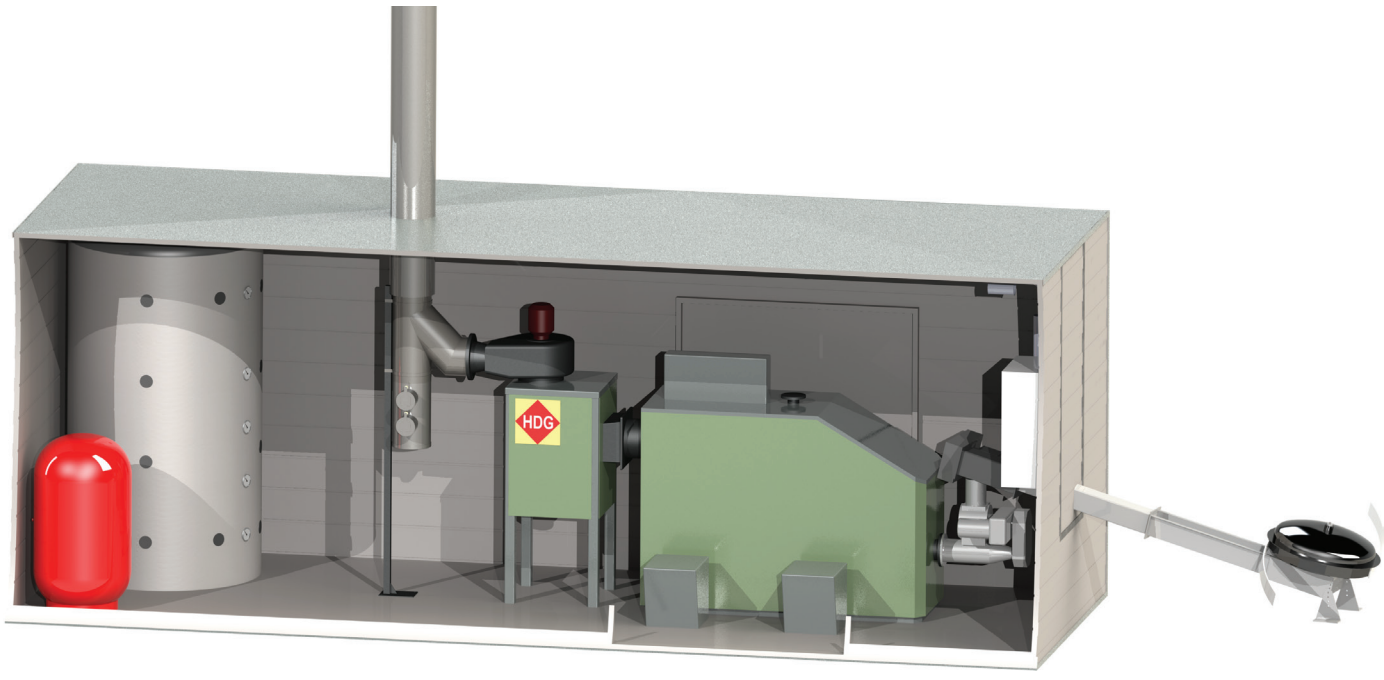
Energy cabin size 3A

Compact 100-200 wood chip boilers

Energy cabin Size 3, Compact 100 - 200 for external chip store

Compact 100-200 wood chip boilers with external fuel store. In this application the Compact 100-200 boilers are fitted with an FRA or combination of TFQ and FRA to bring wood chip to the boiler from a remote wood chip store.

Electrically and hydraulically connected. Ready for external distribution and electrical connections. Roof and sides are clad in composite insulated panel. Includes 3 meters twin wall insulated flue.



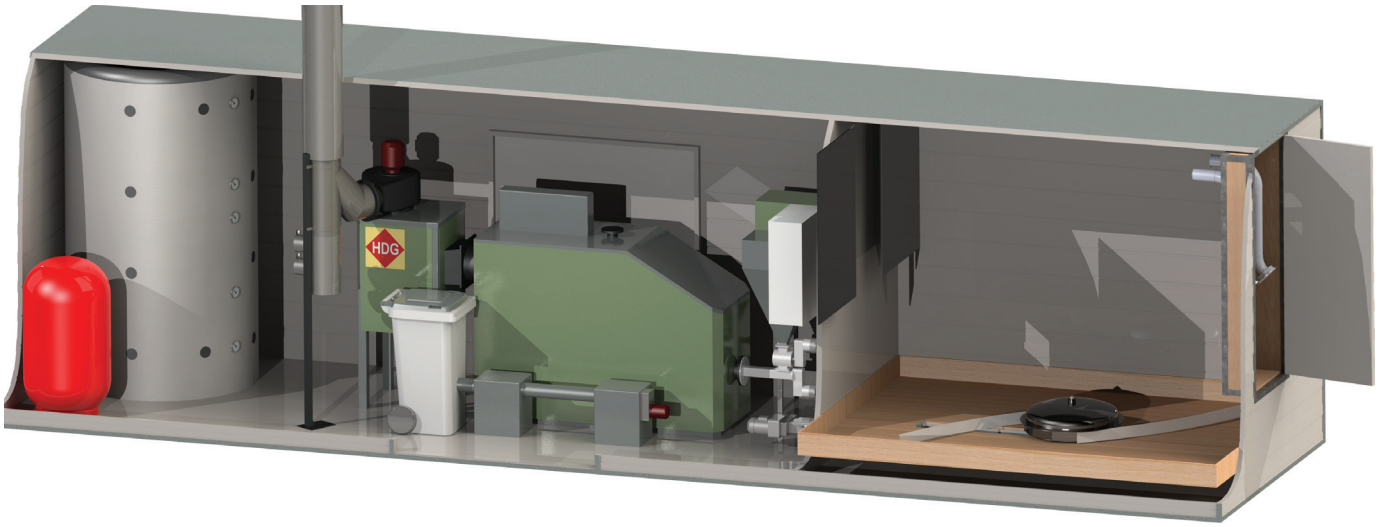
Energy cabin size 4

Compact 100-200 wood pellet boilers

Energy cabin Size 4, Compact 100 - 200 with integrated pellet store

Compact 100-200 wood pellet boilers. Includes bulk pellet fuel store with FRA-PSS auger- vacuum pellet transfer system.

Electrically and hydraulically connected. Ready for external distribution and electrical connections. Roof and sides are clad in composite insulated panel. Includes 3 meters twin wall insulated flue.



Energy cabin cascade

Multiple cabins linked together

For higher power requirements the HDG heating equipment can be installed in cascade formation.
The cascade solution of using two boilers for 380kW or a combination of up to ten HDG Compact 200`s for a total nominal heating power of 1,900 kW is particularly popular.
For medium sized requirements the Compact 100 can be combined in pairs for 200kW installations or as 198kW on request
For smaller applications the Compact 25-80kW range can be cascaded from 50kW to 160kW.

The advantages of a cascade solution:

- Large output range
- High operational safety and redundancy
- Demand-oriented heat flow, especially in case of fluctuating energy demand
- Simple and precise power control
- Exceptionally economical operation and efficiency
- Boiler maintenance without heating interruption

Heating requirements vary from hour to hour and day to day. Our climate can quickly change from a freezing outside temperature to conditions where heating may not be required at all. This is where cascade systems are an ideal solution.
A correctly sized biomass boiler installation should heat the commercial or domestic requirements with a design temperature below freezing. However, for at least 80% of our heating periods, the ambient temperature is far higher. By cascading several boilers together only the energy required at the relevant time is provided.

The automatic controls incorporated within the HDG Compact range optimise how many boilers need to operate. Lead and support boilers are alternated automatically to give even operating hours.
Cascade boiler solutions offer several different fuel feed options. From individual spring blade auger agitators, combined auger agitators, walking floor solutions and pellet vacuum systems.

Reduced costs, lower emissions and longer boiler life

- Reduced fuel consumption. Only the boiler or combination of boilers required to meet the load operate.
- Smaller boilers respond quicker to ignition and heat up cycles for higher overall efficiencies.
- Emission levels are reduced as long warm up and partial load operation is not required.
- EN303-5 boiler test approvals apply to all models in the HDG range. The ranges fulfil the requirements of the renewable heat incentive (RHI 30/150).
- Cascaded boilers only operate when heat is required reducing the boilers run time. The service requirements and boiler run hours are reduced.
- Automatic rotation of lead boiler to even boiler running times and extend boiler life

Energy cabin size 2-4 wood pellet

Construction and design

Energy cabin size 2-4 wood pellet versions

Steel, our chosen material, gives us tremendous flexibility during the design stage, having great strength, rigidity & longevity during operation.
The first stage of construction is the floor, 200mm thick, it provides a strong platform for the completed plant room. Raised steel channel sections support the internal floor and adjustable legs complete the construction.
The pre insulated wall and roof panels are supported by an 80mm box section framework. The panels provide several functions: weather proofing, additional strength, insulation for maximised efficiency and an attractive clean appearance. However, they can be ready for post construction strip cladding with a variety of materials.

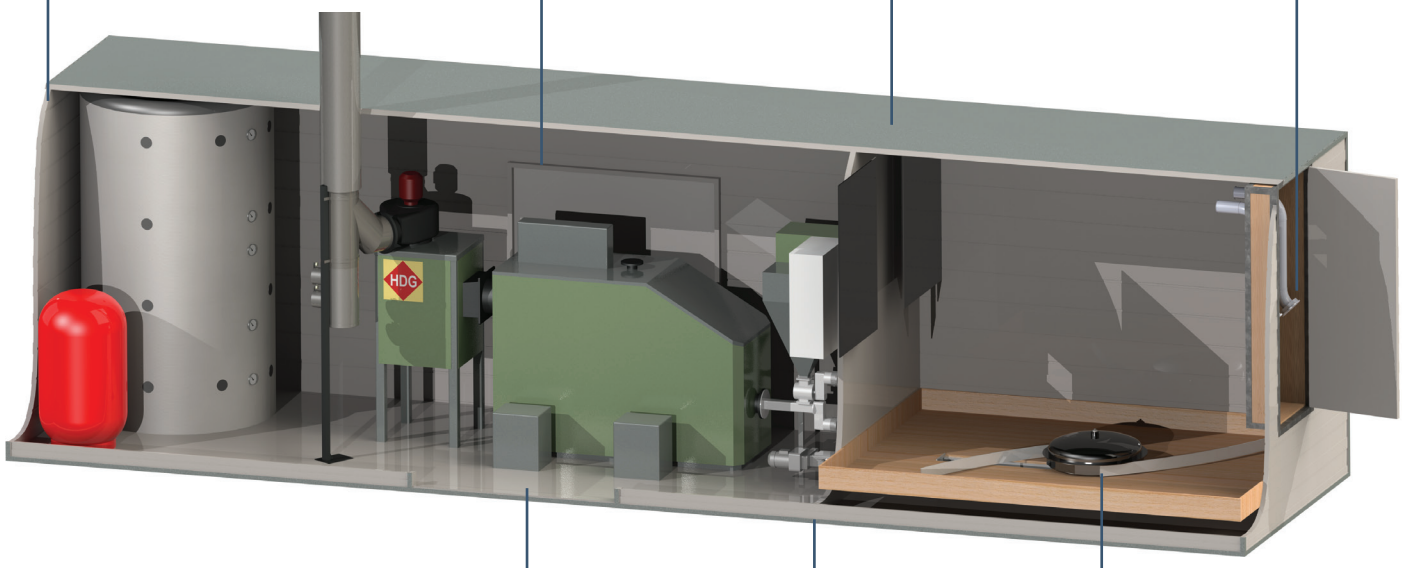
Further features include: security standard lockable steel doors to prevent unwanted access. Fuel store inner door is located behind a another high security door. The fill and vent tubes are positioned at a comfortable height and angle providing the best conditions for blown deliveries. Maintenance free building design.
An energy cabin- plant room built & designed to the same high standards as the equipment it is designed to house, HDG.

Accumulator and expansion vessel located within the cabin as standard

Left or right handed versions of energy cabins can be specified. This includes changing the master access doors to the other side along with the boiler fuel feed equipment. Example right hand version below.

The roof is pitched to an integral down pipe.
The roof area is left free for solar applications.

Door access to fuel store
Inner bulk head with pellet fill tubes. Glass inspection panel of 12mm glass. Split level inner access doors.
Optional boiler isolation control.



External building cladding is composite insulated panels, constructed of steel internal and external surfaces with corrosion resistant surface coating.

cabin access is via double steel ventilated access doors. Master door will be mounted ash side of cabin.
Additional doors can be mounted on the opposite side if required.

Steel frame structure is capable of supporting combined weight in excess 30 tons

By using the FRA-PSS flexible blade with vacuum transfer, up to 14.5 tonnes of pellet in a size 4 cabin can be stored.

Energy cabin size 2-3 wood chip

Construction and design

Energy cabin size 2-3 wood chip versions

Steel, our chosen material, gives us tremendous flexibility during the design stage, the greatest strength, rigidity & longevity during operation.
The first stage of construction is the floor, 200mm thick, it provides a strong platform for the completed plant room. Raised steel channel sections support the internal floor and adjustable legs complete the construction.
The pre insulated wall and roof panels are supported by an 80mm box section framework. The panels provide several functions, weather proofing, additional strength, insulation for maximised efficiency, and an attractive clean appearance. However, they can be ready for post construction strip cladding with a variety of materials.

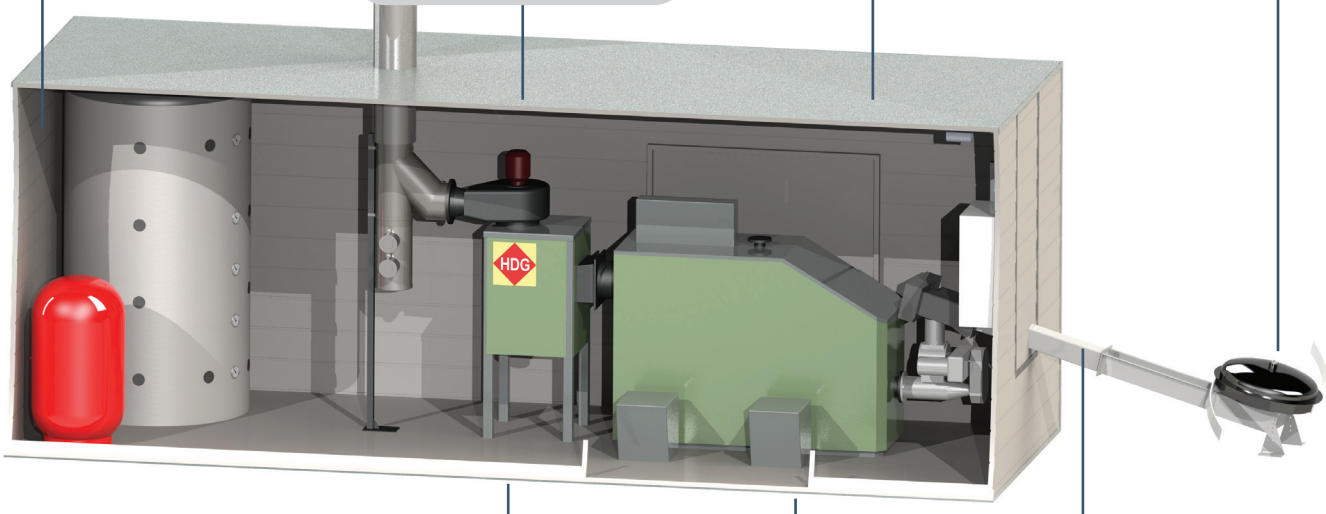
Further features include: security standard lockable steel doors to prevent unwanted access. East access for fuel delivery, is located behind a another high security door. The fill and vent tubes are located at a comfortable height and angle providing the best conditions for blown pellet deliveries. Maintenance free Building design.
An energy cabin- plant room built & designed to the same high standards as the equipment it is designed to house, HDG.

Accumulator and expansion vessel installed located within the cabin as standard

This includes changing the master access doors to the other side along with the boiler fuel feed equipment.
Example right hand version below.

The roof is pitched to an integral down pipe.
The roof area is left free for solar applications.

External fuel feed transfers wood chip on demand to the Compact boiler. Additional transfer augers can be installed to increase the distance from the remote store.

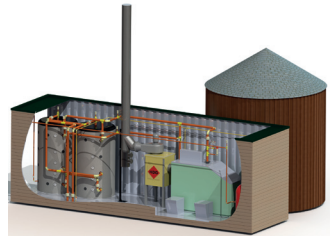


External building cladding is composite insulated panels, constructed of steel internal and external surfaces with corrosion resistant surface coating.

Cabin access is via double steel ventilated access doors. Master door will be mounted ash side of cabin. An additional doors can be mounted on the opposite side if required.

Steel frame structure capable of supporting combined weight in excess 25 tons

By using the FRA flexible blade feed system a variety of different options can be used. For example; round , square or rectangular wood chip stores new build or conversion of existing buildings

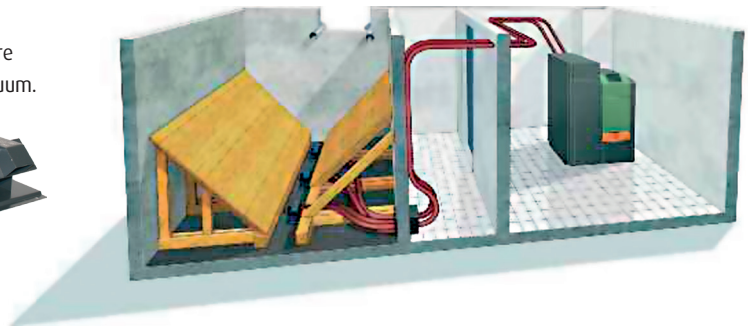


Energy cabin fuel feed systems

Pellet probe, FRA wood chip and FRA-PSS wood pellet

Pellet probe bulk pellet transfer system for Energy cabin size 1 with K series boiler

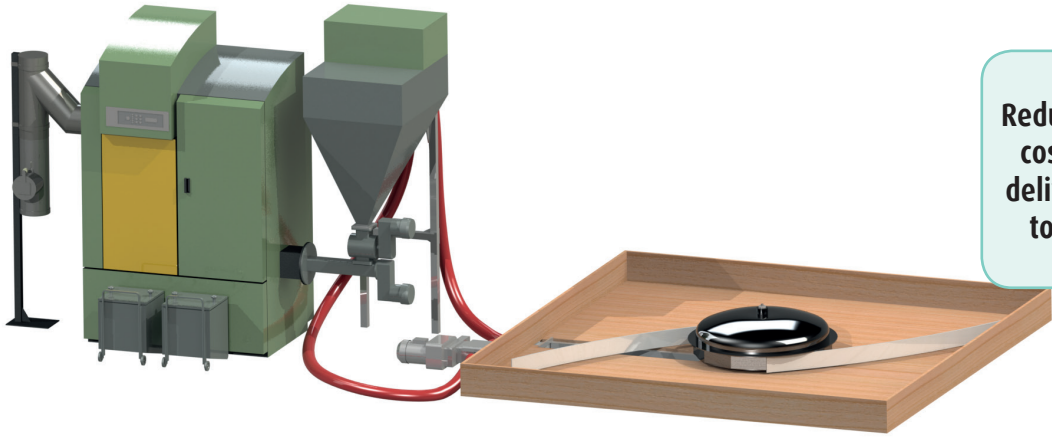
Energy cabin size 1A is suitable for bulk pellet storage. The fuel is stored at the rear of the cabin in a bulk pellet store area. On demand wood pellets are transferred from the bulk fuel store to the K series local fuel hopper by vacuum.



FRA-PSS, flexiblade with vacuum transfer

The FRA-PSS wood pellet transfer system allows for very large volumes of wood pellet in limited spaces.
Traditional fuel store designs have sloping sides reduce the store capacity by up to 40%.

The ability to have larger fuel volume deliveries can greatly reduce wood pellet buying prices. Many wood pellet suppliers offer reduced prices for 12 ton or more delivery volumes. Energy cabin size 4 can hold 14.5 tons at 90% capacity. This leaves a 2.5 tons reserve which allows for longer periods between deliveries which may occur in the high demand cold weather periods.

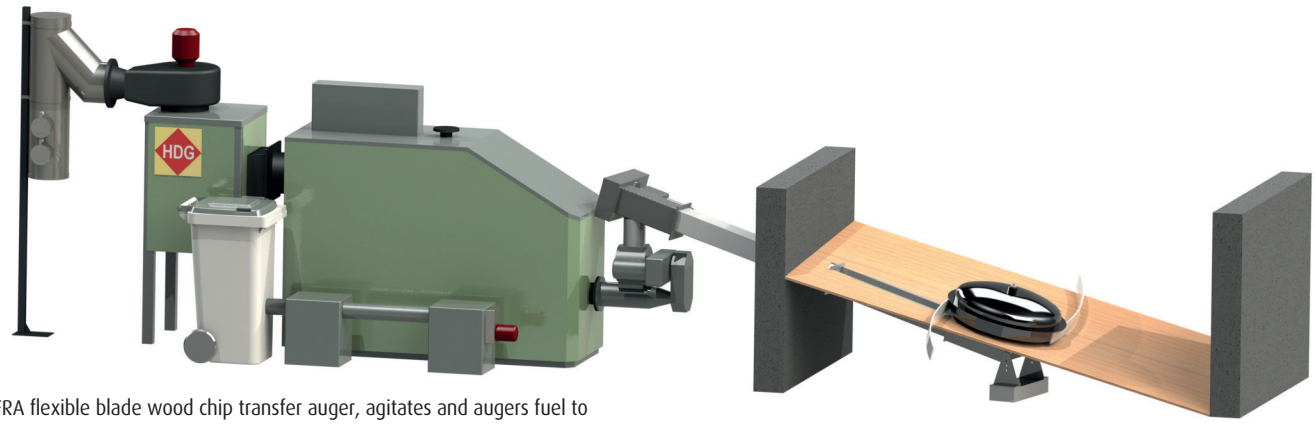


Reduced your fuel costs with bulk deliveries to 14.5 ton fuel store

The FRA-PSS transfers pellets from the store on demand to a vacuum transfer head. The fuel store is fitted with a flat floor which greatly increases local pellet storage. Flexible blades of the FRA-PSS sweep pellets from all areas.

This system allows for greater fuel storage as slopping sides are not required. The vacuum moves the pellets to the TBZ 80 feed system.

FRA flexiblade for wood chip



The FRA flexible blade wood chip transfer auger, agitates and augers fuel to the TBZ 150 of the chip boiler. It is installed up to a 20 degree angle and is surrounded with a slopping floor.

The bulk head can be fitted with the following equipment.

Starter set of 2 fill and vacuum tubes. Access door with 12 mm glass, 300 x 300mm viewing panel. Electrical safety switch to isolate boiler. Access steps.

Pellet fill and vacuum tubes. The style shape and design of these is very important. Each fill/vent tube is fitted with a Storz connection. This allows the delivery driver to connect his hose safely and reliably to the store. The position of these is important so the lorry driver can reach the connections without having to use portable steps or other unsafe supports.

Viewing panel. Its important to be able to view the pellet store level so more pellets can be ordered. Like wise it helps the delivery driver to know how many more pellets to fill.
A toughened glass 12 mm viewing panel is very important. Fitted with 300 x 300 mm viewing panel.

Over and under pressure relief flaps. The bulk head is fitted with security flaps which open if the pressure or vacuum exceeds preset levels.

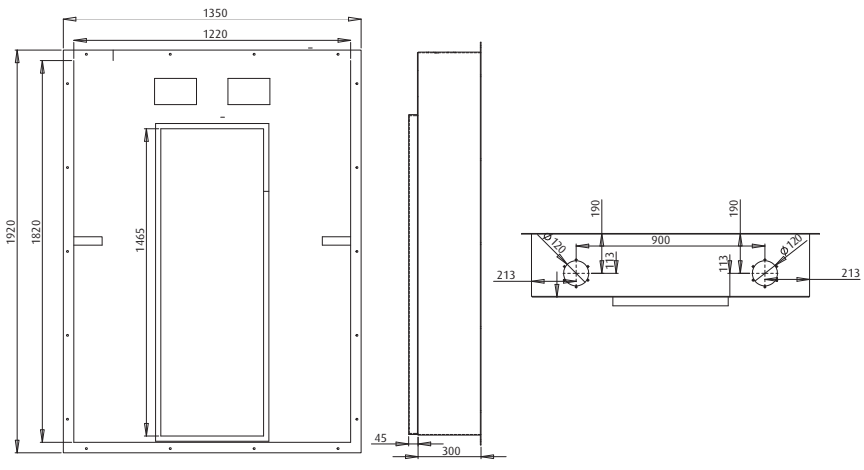
Pellet tubes are securely mounted both with wall and ceiling supports. The pellet tube can be increased in height by adding an additional length to the vertical section.
The horizontal support can be extended in height by increasing the length of the connecting threaded rod.

The bulk head has vertical and horizontal mounting edges. This allows the bulk head to be mounted on the inside edge of the pellet store, outside edge or built into the wall during construction.

Electrical safety switch is fitted to the upper door. This switches off the boiler for safety when the door is opened.

Access doors. The upper door includes the viewing glass and locks the lower door in place. The steel doors can easily be removed to allow access to the fuel store. Each door is held in place by knurled screw knobs.

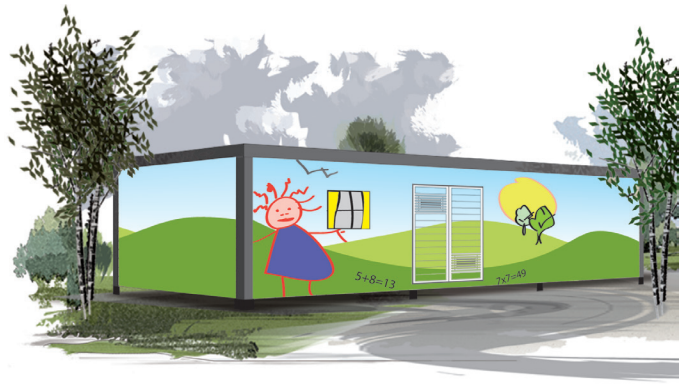
Set of steps. As an option steps can be added to the bulk head when it is mounted above the ground.

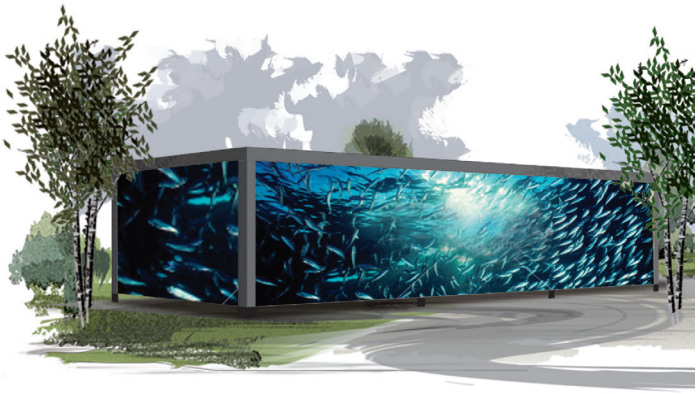


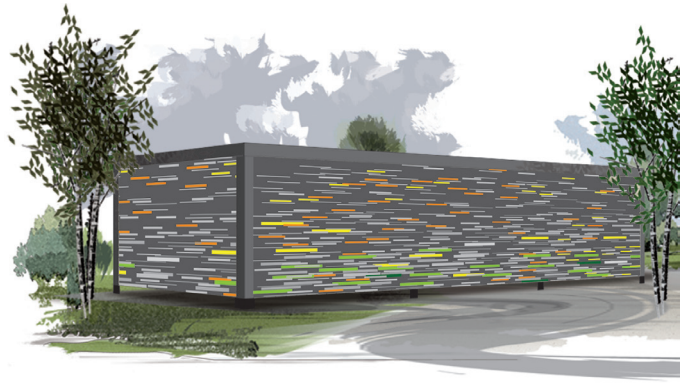
Energy cabin wrapping

Applications include domestic properties, offices, hotels, restaurants, community centres, schools and much more.

The Euroheat energy cabin can be styled to blend into almost any surrounding area or stand and make a statement of supporting the enviroment.







Energy cabin 1/1A/2

Specifications, standard equipment and options

Energy cabin internal/external equipment	Size 1 K series Manual fill	Size 1A K series bulk pellet store	Size 2 Log boilers K, Navora, Euro
Double opening side mounted secure doors with key lock	•	•	•
Double door step and access ramp secure mounting points	•	•	•
Additional opposite side double door with key lock	o	o	o
Mounting points for optional ramp and steps	•	•	•
Integrated roof guttering with down pipe connection	•	•	•
Height adjustable feet	•	•	•
Insulated composite side and roof panels	•	•	•
Integral pellet store bulk head with secure access	-	•	-
Bulkhead integrated over and under pressure safety valves and viewing window	-	•	-
Integrated pellet fill and vacuum tubes securely located in bulk head	-	•	-
Low level and high level ventilation, fully ventilated main access doors	•	•	•
Non slip painted floor	•	•	•
Floor access for heating mains and incoming services	•	•	•
Hydraulic equipment			
Accumulator sizing, see energy cabin pricing information			
Bi-metal thermometer 2 per accumulator	•	•	•
Insulated DN40 unused connections on accumulator	•	•	•
Expansion vessel sizing, see energy cabin pricing information			
Expansion vessel isolation and drain	•	•	•
Manual system water fill	•	•	•
Pressurization unit	o	o	o
Auto vent equipment	•	•	•
Equipment and pipe work insulation			
Insulated hydraulic pipe work	•	•	•
Bagged insulation of flange and isolation valves (set)	•	•	•
Chimney and flue connections			
Flue starter kit with chimney support, includes full chimney cleaning access and condensation drain	•	•	•
Integrated chimney flashing and roof support	•	•	•
Storm collar fitted above flashing	•	•	•
Flue size, see energy cabin pricing for information			
Additional 1 meter flue height	o	o	o
Guy wire support required for installations over 4 meters	o	o	o
Powder coating colour of chimney	o	o	o
Electrical equipment			
Distribution board, power to boiler, lighting and small power	•	•	•
Spare ways for heating distribution power supply	•	•	•
2 x 2 gang switched IP66 sockets 230v 13amp	•	•	•
Emergency switch by exit door	o	o	o

Maintained internal emergency lighting	•	•	•
Electrical distribution in proprietary containment	•	•	•
Access steps and ramps			
Plant room door access door steps and ramp	0	0	0
Special design steps or access ramp	0	0	0
External energy cabin colours and materials			
Composite insulated panel, Gull Grey main panels, edge trim Goose wing Grey	•	•	•
Wood cladding	0	0	0
Living Green wall	0	0	0

Standard item	•
Optional item	0
No available	-

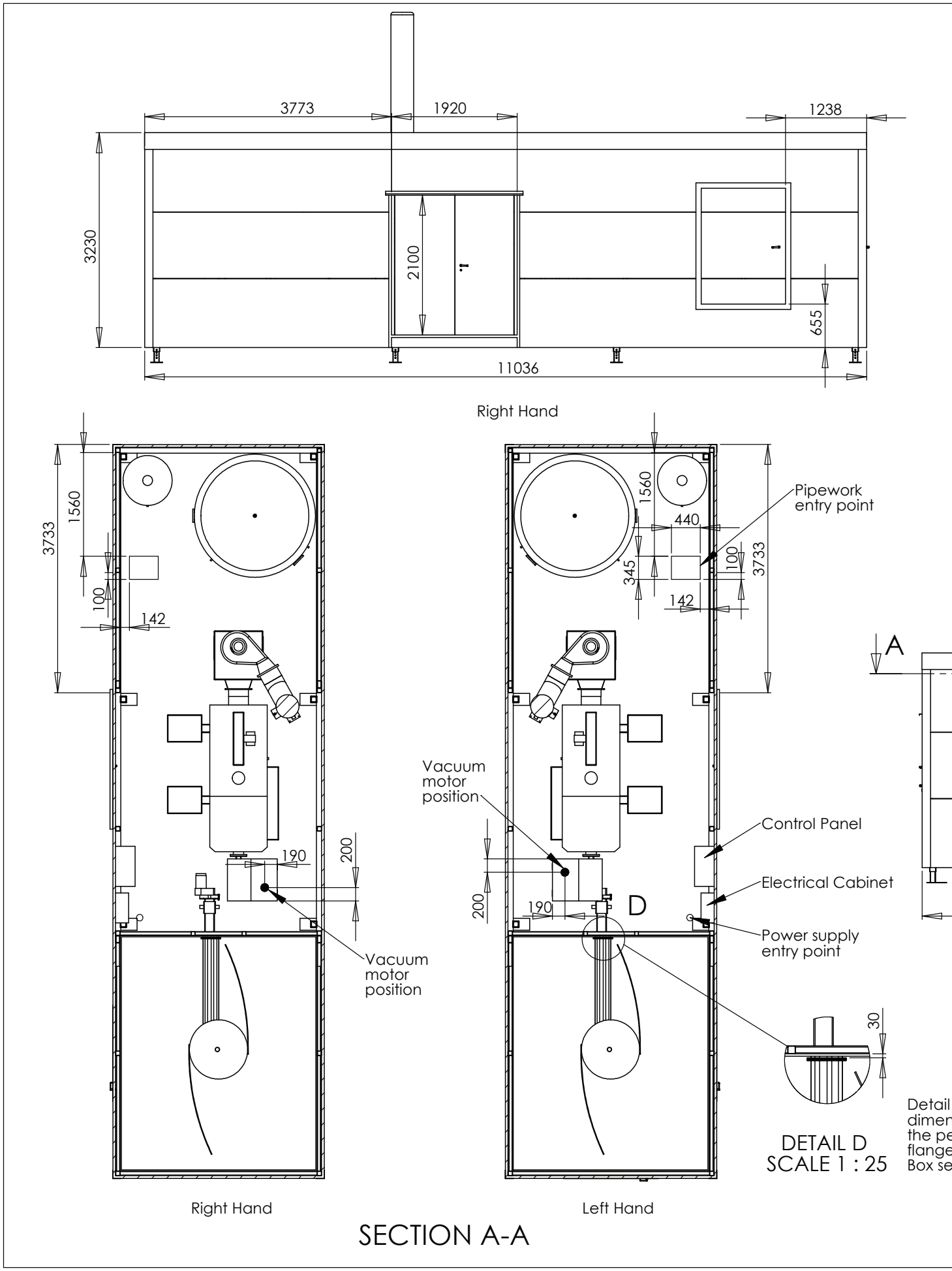
Energy cabin 2A/3/3A/4

Specifications, standard equipment and options

Energy cabin internal/external equipment	Size 2A Compact 25-80 wood chip	Size 3 Compact 25-80 wood pellet	Size 3A Compact 100-200 wood chip	Size 4 Compact 100-200 wood
Double opening side mounted secure doors with key lock	✓	✓	✓	✓
Additional opposite side double door with key lock	o	o	o	o
Mounting points for optional ramp and steps	✓	✓	✓	✓
Fuel store end access door (pellet models) with key lock	-	✓	-	✓
Integrated roof guttering with down pipe connection	✓	✓	✓	✓
Height adjustable feet	✓	✓	✓	✓
Insulated composite side and roof panels	✓	✓	✓	✓
Integral pellet store bulk head with secure access	-	✓	-	✓
Bulkhead integrated over and under pressure safety valves and viewing window	-	✓	-	✓
Viewing window of toughed 12mm glass of fuel store from plant room	-	✓	-	✓
Integrated pellet fill and vacuum tubes securely located behind end access door	-	✓	-	✓
Low level and high level ventilation, fully ventilated main access doors	✓	✓	✓	✓
Non slip painted floor	✓	✓	✓	✓
Floor access for heating mains and incoming services	✓	✓	✓	✓
Hydraulic equipment				
Accumulator sizing, see energy cabin pricing information				
Bi-metal thermometer 2 per accumulator	✓	✓	✓	✓
Insulated DN40 unused connections on accumulator	✓	✓	✓	✓
Expansion vessel sizing, see energy cabin pricing information				
Expansion vessel isolation and drain	✓	✓	✓	✓
Manual system water fill	✓	✓	✓	✓
Pressurization unit	o	o	o	o
Auto vent equipment	✓	✓	✓	✓
Equipment and pipe work insulation				
Insulated hydraulic pipe work	✓	✓	✓	✓
Bagged insulation of flange and isolation valves (set)	✓	✓	✓	✓
Bagged insulation of cyclone fan	✓	✓	✓	✓
Chimney and flue connections				
Flue starter kit with chimney support, includes full chimney cleaning access and condensation drain	✓	✓	✓	✓
Integrated chimney flashing and roof support	✓	✓	✓	✓
Storm collar fitted above flashing	✓	✓	✓	✓
Flue size, see energy cabin pricing for information				
Additional 1 meter flue height	o	o	o	o
Guy wire support required for installations over 4 meters	o	o	o	o
Powder coating colour of chimney	o	o	o	o
Frost protection equipment				
Activation of local circulation pump and 3 port valve at set temperature	o	o	o	o
Electric immersion 3 kW in accumulator activated by Compact main controller	-	-	o	o

Electrical equipment				
Distribution board, power to boiler, lighting and small power	✓	✓	✓	✓
Spare ways for heating distribution power supply	✓	✓	✓	✓
2 x 2 gang switched IP66 sockets 230v 13amp	✓	✓	✓	✓
Emergency switch by exit door	o	o	o	o
Maintained internal emergency lighting	✓	✓	✓	✓
Electrical distribution in proprietary containment	✓	✓	✓	✓
1 gang switched IP66 socket in pellet access bulk head	-	✓	-	✓
Remote visualisation, control and information				
HDG remote monitoring with email messaging	-	-	o	o
Ash removal options				
Transfer cart for standard 80L ash containers	-	-	o	o
Centralized ash collection with 240 litre single wheely bin	-	-	o	o
Access steps and ramps				
Pellet bulk head access steps	-	✓	-	✓
Plant room door access door steps and ramp	o	o	o	o
Special design steps or access ramp	o	o	o	o
External energy cabin colours and materials				
Composite insulated panel, Gull Grey main panels, edge trim Goose wing Grey	✓	✓	✓	✓
Wood cladding	o	o	o	o
Living Green wall	o	o	o	o
Other options on request	o	o	o	o

Standard item	✓
Optional item	o
No available	-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3733
1560
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142
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Vacuum
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345
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3733
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Pipework
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Vacuum
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Control Panel
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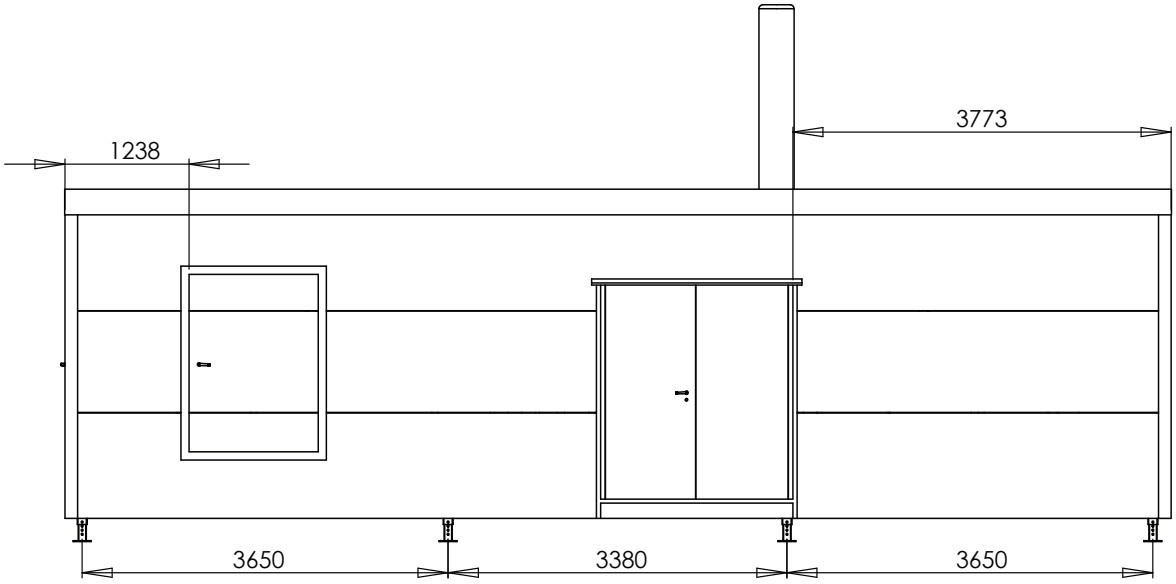
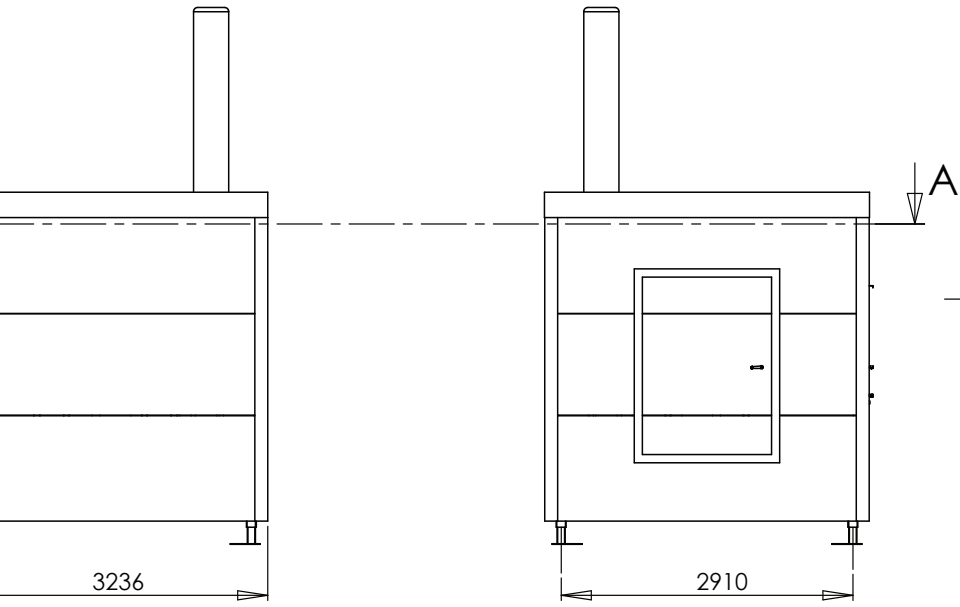
SECTION A-A

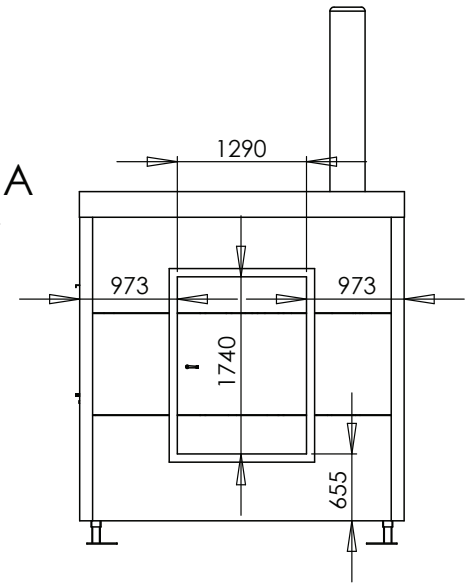


Left Hand



Right Hand

Left Hand



The Pellet store access and fill point is also available mounted into the end of the cabin as shown above.

Notes:

Section A-A provides an indication of the internal layout only.
Not all components are shown.

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and the Prefab
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01885 491100 Fax 01885491101

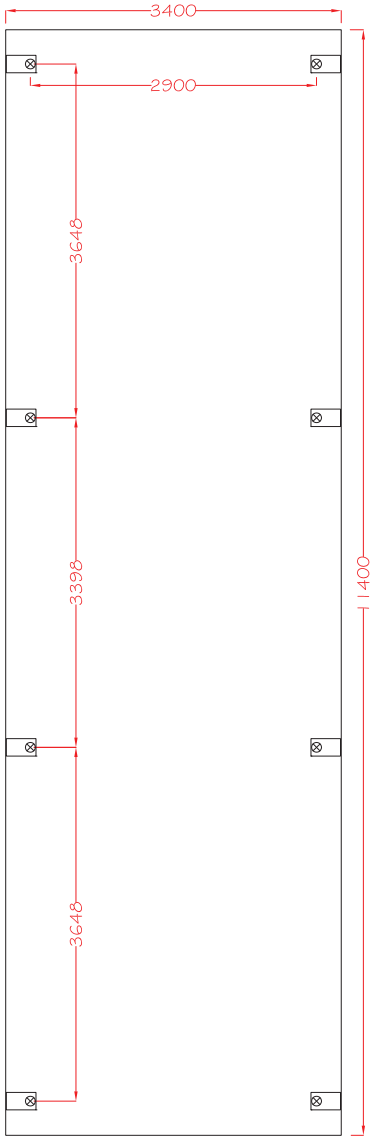
INSTALLER

DO NOT SCALE FROM DRAWING

PROJECT: Euroheat EBIS Prefab

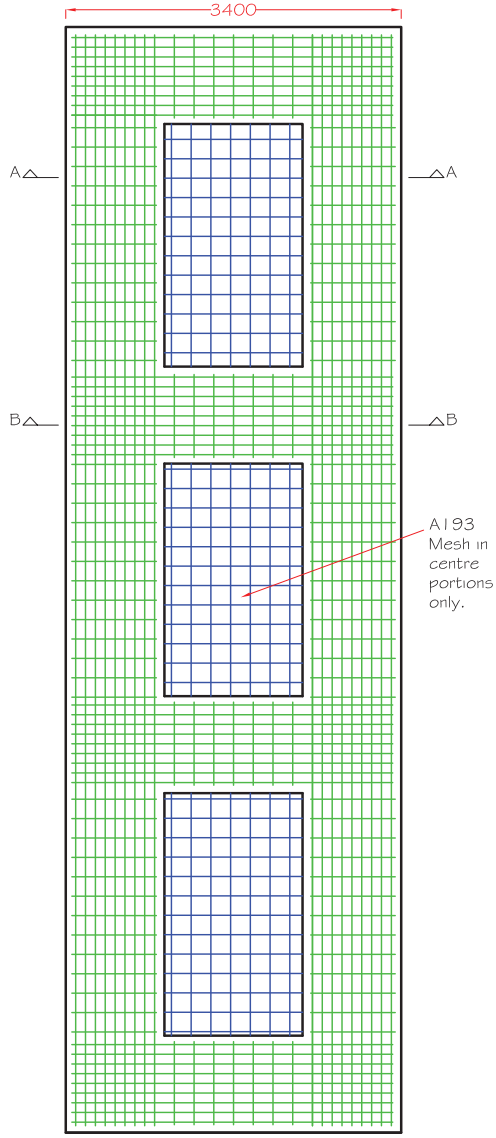
TITLE: Left & Right Handed versions

DRAWN	DWG NO.	REVISION	A2
HMSB			
DATE 07/11/2012	SHEET 1 OF 1		SCALE: 1:50

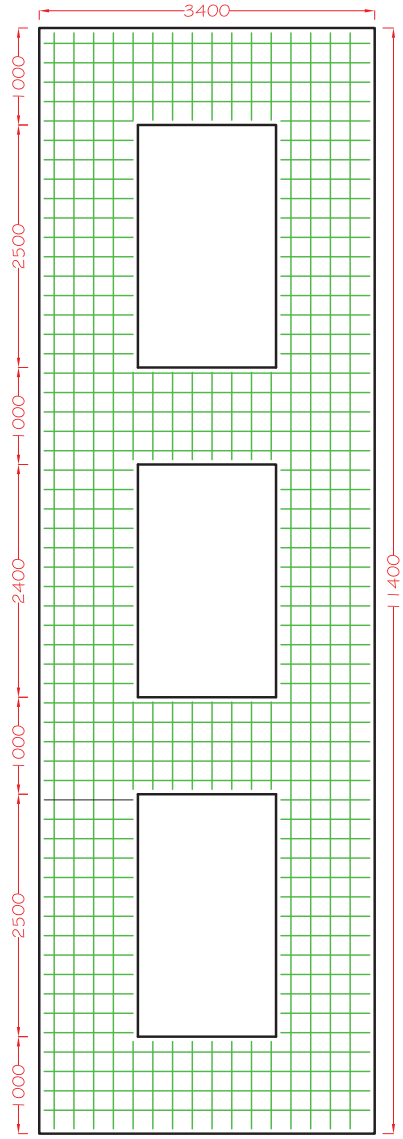


Plan view of slab (Scale 1:50)

⊗ Indicates centre point of leg



Plan view: Top layer of steel - B1131 mesh (Scale 1:50)

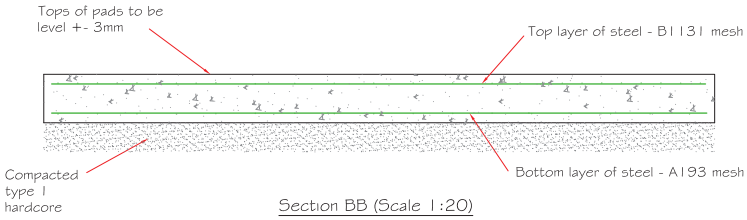


Plan view: Bottom layer of steel - A193 mesh (Scale 1:50)

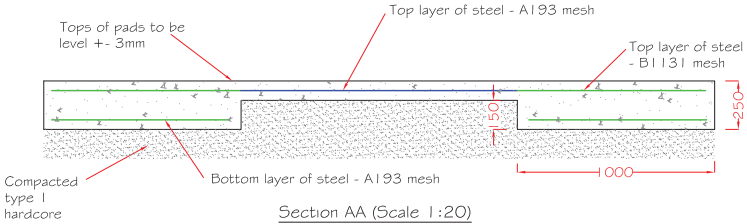
Reinforced concrete raft foundation to structural engineer's design. All concrete to be 35Kn strength. All reinforced concrete to be vibrated between shutters. Cover to steel to be 50mm min, unless otherwise stated. Cover and spacings to be maintained with proprietary spacers and stools wired to bars to prevent movement of reinforcement during placing of concrete. All junctions of mesh are to be securely tied together. Min lap at all sides of mesh to be 300mm.

Strip off the soil down to depth below ground level as agreed on site or to a competent bearing strata and form the underslab profile in a type 1 granular quarry fill, blinded with stone dust. This fill must be placed and compacted around the slab extending 1m in all directions to retain the underslab fill. The fill is to be compacted in layers not greater than 200mm thick, shaped to the underslab profile.

Compaction to be achieved by the use of a 1.25Kn vibratory roller passed over each layer a min of 6 times.



Section BB (Scale 1:20)



Section AA (Scale 1:20)

Raft foundation to be used where bearing capacity of sub-soil is in excess of 25Kn/m² but less than 50Kn/m²

C centre of leg positions confirmed

Hernon Associates

Architects/Structural Engineers

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NP15 1DS
Tel: 01291 690010
liz@hernonassociates.co.uk

Project:

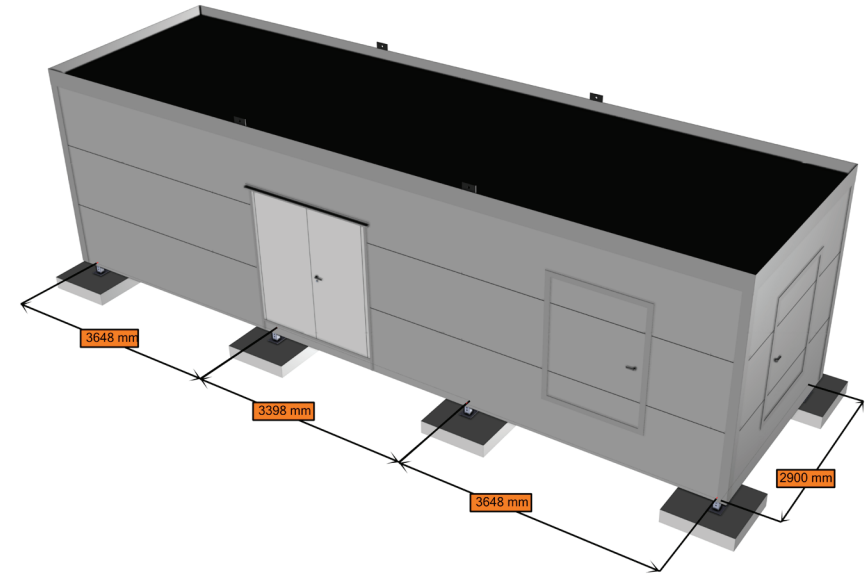
Euroheat Natural Energy Company

Drawing:

Energy cabin
Raft foundation - Type 1

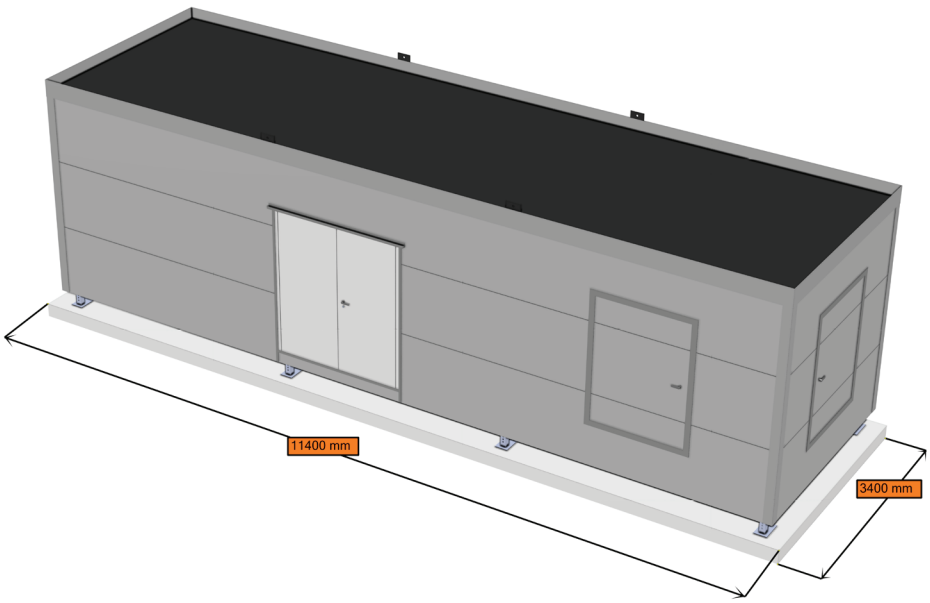
Date:	Scale:	Drawing No:	Revision:
30.4.13	1:50/20 @ A3	2558-01	C

Recommended concrete pad sizes and minimum clearances Cabin size 4



Cabin Size 4
Concrete Pad specification and minimum clearances
Front loading

Number of Pads 8
Minimum Clearance to front
Minimum clearance to side N/A



In 15 years when your replacing your Biomass boiler, our HDG boilers and Energy Cabin will still have at least a further 10 years lifespan.

Trust Euroheat - we are already replacing inferior models.

Euroheat
Natural Energy Company

Bishops Frome Worcestershire WR6 5AY

Reception **01885 491100**
Email **info@euroheat.co.uk**

March 2013 E&OA Product number LI074