Euroheat
Natural Energy Company

HDG K SERIES

Wood pellet boiler

The perfect alternative to fossil fuels

www.euroheat.co.uk


Euroheat
Euroheat
Natural Energy Company

Comfortable heating. With wood!

The K Series pellet boiler, built to heat small to medium sized homes economically, efficiently and effortlessly




An eco friendly boiler that's right for you

The K Series wood pellet boiler has been designed to replace your current gas, LPG or oil boiler and fit seamlessly into your lifestyle. Brimming with advanced technology and with a specification that is often restricted to far larger boilers. With a small footprint the K Series works quietly and automatically in the background providing you with on demand, eco friendly, hot water and central heating. The HDG K Series is a high quality, efficient domestic pellet boiler, with a life span and specification that far exceeds normal domestic boilers. More importantly it will reduce your carbon footprint, your reliance on expensive fossil fuels and give you cleaner energy for you and your family.

93% EFFICIENCY

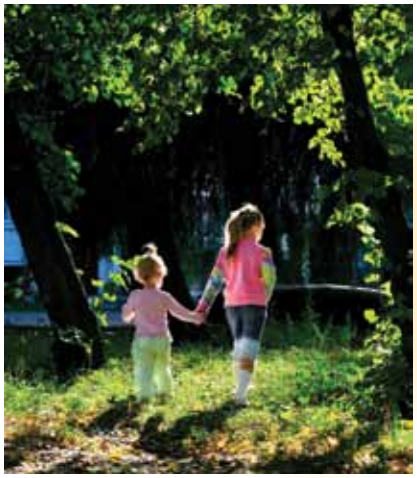

Euroheat
Natural Energy Company

Comfortable heating. With wood!

Specifically built with a small footprint to fit perfectly into your home

The Euroheat HDG K Series is the latest generation of pellet boilers. These innovative, fully automatic pellet boilers are designed for the home with a smaller footprint. The K Series not only incorporates exciting new combustion technology but also the highest level of reliability and comfort. Key features include standard automatic ignition, computer controlled combustion technology and automatic cleaning.

All this automation means the boiler operates in the background with little intervention except filling, the occasional de-ashing and annual service. Filling the boiler with pellets can be fully automated as well, if you choose to manually fill, then even this is a job that can be completed in minutes.



K Series pellet boiler will allow you to...

- Generate and use green, carbon neutral heat.
- Heat your home and provide all the hot water you need.
- Reduce your CO_2 emissions by up to 96%.
- Remove your reliance on fossil fuel.
- Receive up to £18,445 back from the governments RHI.*
- Save up to £2000 per year on your heating.
- Have a sustainable, reliable fuel for the future.


Euroheat
Euroheat
Natural Energy Company

Comfortable heating. With wood!

With RHI and fuel savings your boiler will effectively cost you **NOTHING**

Fed up with fossil fuel prices?

Whilst wood pellet prices have remained stable over the last 10 years, oil gas and LPG have seen huge increases year on year. As we are dependent on oil and gas being piped from Europe we have seen how demand from emerging countries can significantly increase wholesale prices, which are always quickly passed on. By burning wood pellet you will future proof yourself against these price increases. For instance in one quarter, 2010 there was an 12.2% increase in domestic gas and 27.2% in heating oils,* just in time for the winter. Protect yourself and your family from these price hikes, choose to burn a natural, eco friendly and affordable fuel.

*Source Department of Energy Change.

Renewable Heat Incentive

The Government, in an effort to reduce greenhouse gases is introducing the domestic Renewable Heat Incentive. This scheme will come into effect Spring 2014. It is expected domestic RHI will pay tariff rates for 7 years. All domestic households will be able to apply, including those on the mains gas grid. Some energy saving measures will also have to be implemented before the applications are passed.

Cost of a new K Series 26kW pellet boiler with bulk pellet store replacing oil boiler over 7 years*

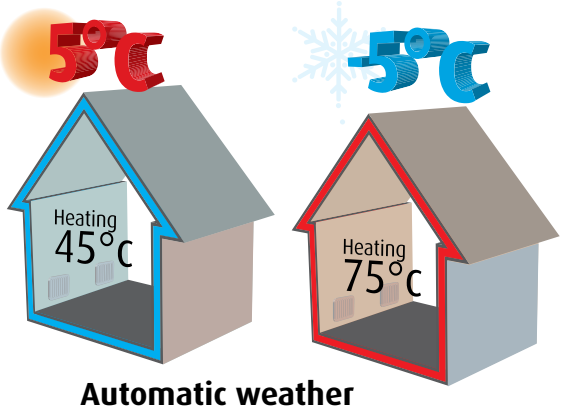
Approximate total cost of K26 with bulk pellet store	-£19,000.00
Fuel savings over 7 years	+£8190.00
RHI over 7 years	+£18,445.00
Total savings over 7 years	**£7535.00**

* Based on supplied Governments figures, to be approved by parliament.


Euroheat
Euroheat
Natural Energy Company

Comfortable heating. With wood!

The K Series will fit easily into a garage, utility room or even in the garden!



Where will my boiler go?

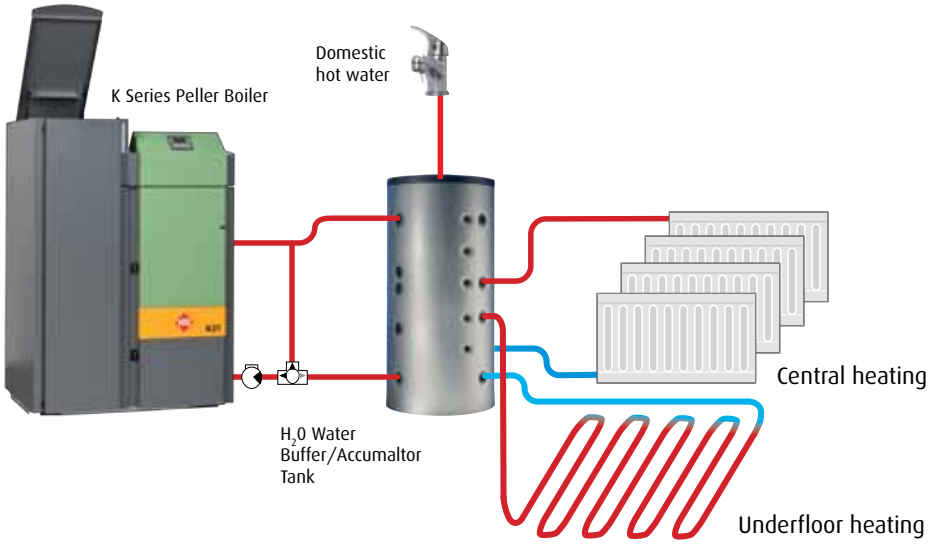
The small footprint and clever design means the K Series will fit quite easily into a 1.5 x 1.2 meter space. It therefore could fit into a utility room, garage or outdoor building. Euroheat also supply space saving Energy cabins, these are supplied ready to use and simply require plumbing into your existing system. Remember one K Series boiler could provided enough energy for two, three or more homes...

How do I control my heating system?

The HDG K Series from Euroheat is a dream to operate. Once set up the K series runs automatically in the back ground, all you have to do is fill it up and occasionally empty the ash. You have full control over when the boiler comes on and off, the temperature, it even tells you when it needs servicing. It comes with standard automatic ignition, computer controlled combustion technology, automatic cleaning of the heat exchanger, as well as the patented burner cleaning system.

Automatic weather compensation control

The K Series comes complete with Weather Compensation Control, which will automatically adjust the heating temperature to ensure optimum energy usage. All the K Series models are fitted with a weather monitor device which adjusts the heating to the temperature measured OUTSIDE, thus ensuring that when the weather changes quickly, you don't have to do a thing



Hot as you like

Even the smallest K Series system can provide hot water at mains pressure and at your optimum temperature, exactly as a combi boiler would do. It will work as a stand alone system, or be used in conjunction with your existing oil or gas boiler. You can even add other renewable technologies to the system such solar or thermal.


Euroheat
Natural Energy Company

Comfortable heating. With wood!

K Series effortlessly provides you with piping hot water and will heat your home for less

Domestic hot water

Your K Series boiler burns pellets. The energy created is stored in a buffer, accumulator or thermal store. Euroheat H_2O storage tanks are robust, reliable and are extremely energy efficient heat reservoirs. Their purpose is to provide energy storage by storing the heat produced by the K Series boiler. A simple heat transfer allows you on demand, hot water for heating and domestic hot water. The efficiency of these storage tanks is such that they will provide hot water for many days. Overall they are one of the most efficient ways of producing domestic hot water.

Especially economical & clean

Optimised combustion technology results in low pellet consumption. An advanced thermostat controls the boiler temperature ensuring that only the required amount of heat is produced whilst burning the optimum fuel. In short the K Series is designed to generate heat as efficiently as possible using the minimum amount of fuel possible.


Euroheat
Natural Energy Company
Pellet a natural choice
■ Manufactured from untreated wood, no chemicals
■ CO_2 neutral fuel
■ Reasonably priced and crisis-proof
■ High heating value
■ Consistent quality
■ Space-saving and clean storage

Comfortable heating. With wood!

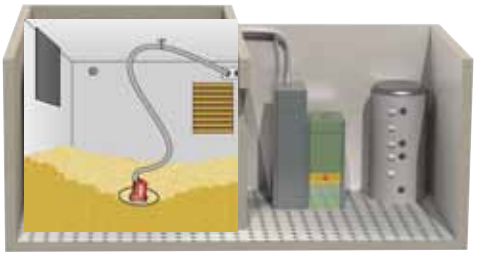
Simplicity to use and with a choice of six feed options

Fuelling by hand

You have the option of fuelling by hand directly into the hopper. Useful for those people who do not have the room for large pellet storage.

Suction mole

The suction mole system uses a vacuum to suck pellets from a specially designed store from the surface, where other systems transfer the pellet from the base. On demand of the K Series boiler the vacuum system starts. At the same time a small electrical motor on the mole rotates an arm under the mole moving it around the surface of the pellet store. Due to the design and the way the mole operates, it is very important that the store is correctly sized as per the installation requirements.

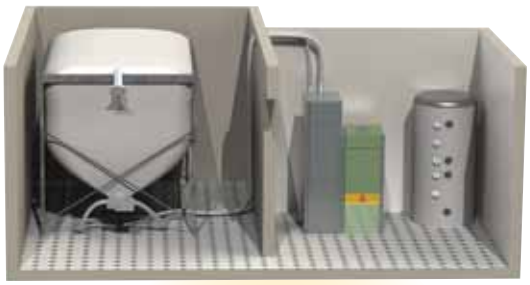


Pellet Tank

With the ability to feed a K Series Boiler the Pellet Tank has been design to offer the smallest of footprints. Dry storage allows perfect vacuum feed delivery.

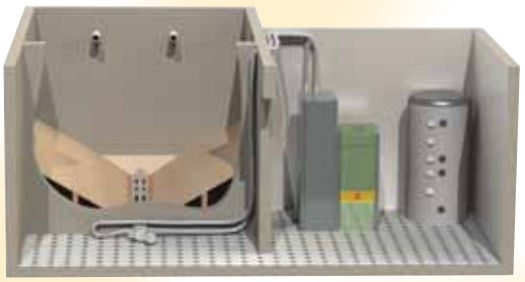
Pellet store sack silo

Purpose designed sack silo which, when installed with the K series vacuum transfer system, allows the bulk pellet held in a sack silo to be transferred by vacuum as and when required to the local pellet hopper of the K series boiler. The vacuum tubes from the K series boiler connect to the sack silo via a pellet vibration head, which ensures a steady and regular pellet supply into the vacuum flow.



Auger combined vacuum system

Probably the most common and recommended system for transfer of wood pellets from a bulk store to the remote K series boiler installation location. A new or existing room is converted to wood pellet storage which incorporates an auger at the base of the store. The store has sloping sides so the wood pellets slide to the centre lower position where the auger is located. The K series automatically calculates when the local pellet hopper requires refilling. The on board vacuum motor starts, after a few seconds the auger in the fuel store pushes pellets into the vacuum flow. When the local fuel store is satisfied the auger stops pulsing, the vacuum continues for a short while to ensure the vacuum tubes are empty. The store can be located quite some distance from the K series boiler. Request details form your installer or the Euroheat design team.



Probe combined vacuum system

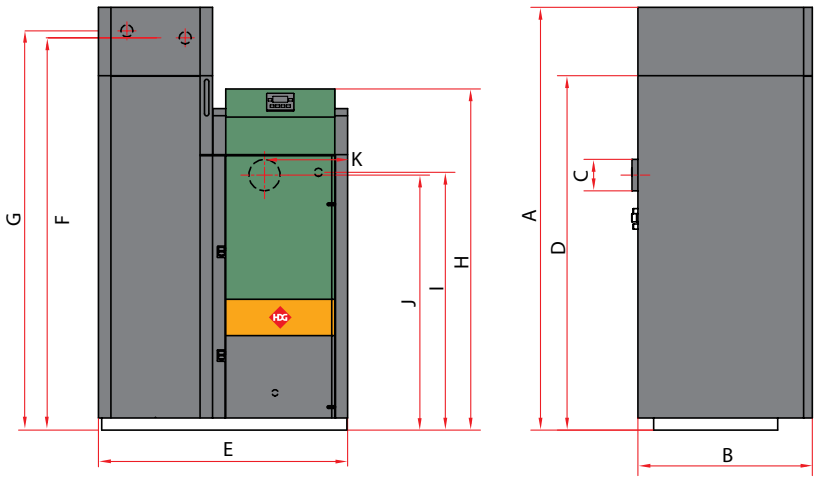
Similar in concept to the auger vacuum system though in this configuration the pellets are encouraged into the filling tubes simply by low pressure air from the fixed head probe. In its simplest form a single vacuum probe is placed in the base of a small pellet store either square or round. This offers limited fuel storage though more than with hand filling of the K series directly.
More commonly 3 vacuum probes are located in the base of a purpose built fuel store with sloping sides. A vacuum probe hose switch is installed in line between the K series boiler and the fuel store. The K series boiler automatically controls the hose switch selecting which probe it wishes to take pellet from based on intelligent software.

Euroheat
Natural Energy Company

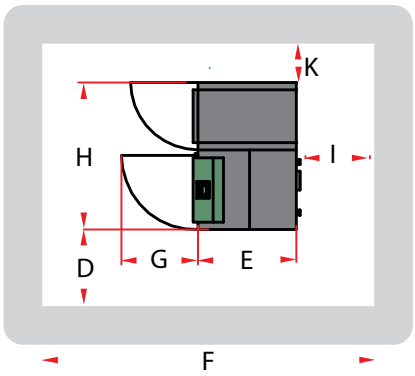
Technical information

Boiler Model	Unit	K10	K15	K21	K26
Performance data (Measurement according to BS EN 303-5)					
Nominal thermal power	kW	9.9	15	21	25.9
Minimum thermal power	kW	3	4.4	6.3	7.5
Boiler efficiency at nominal power	%	93.2	92.7	92.8	92.9
Power required at nominal output	W	46	58	100	110
Electrical connection: Voltage/Frequency	V/Hz	230 / 50	230 / 50	230/ 50	230 / 50
Electrical connection: Back-up fuse	A	13	13	13	13
Boiler data					
Maximum operating pressure	bar	3	3	3	3
Maximum flow temperature	°C	75	75	75	75
Minimum return temperature	°C	60	60	60	60
Water content	l	59	59	53	53
Weight	kg	333	333	344	344
Design data for chimney calculation (BS EN 13384-1)					
Flue gas temperature (Tw) at nominal output	°C	116	129	140	150
Flue gas temperature (Tw) at minimum output	°C	80	83	88	92
Flue gas mass flow at nominal load	kg/s	0.0074	0.0107	0.0156	0.0186
Flue gas mass flow at minimum load	kg/s	0.0025	0.0041	0.0053	0.0061
Flue draught requirement (Pw)	Pa	5	5	5	5
Diameter of flue pipe connection	mm	130	130	130	130
Height of flue pipe connection	mm	1052	1052	1052	1052
CO^2 at rated output	%	11.5	12	11.5	12.0
Water-side connections					
Flow and return connections	DN	25 ID	25 ID	25 ID	25 ID
Drain connection	DN	15 ID	15 ID	15 ID	15 ID
Recommended pipe-work dimension (min.)	DN	25	25	25	25
Water-side resistance at nominal output, 10K	Pa	500	1120	2160	2670
Miscellaneous					
Sound level pressure	dB(A)	< 70	< 70	< 70	< 70
Air inlet cross section, free air requirement	cm2	150	150	150	180
Maximum on board pellet storage for manual feeding	kg	150	150	150	150

Comfortable heating. With wood!



Legend	Description	K Series (mm)
A	Boiler height including suction turbine	1745
B	Boiler depth without flue spigot	720
C	Flue pipe diameter	130
D	Height of boiler without suction turbine (with manual filling)	1463
E	Boiler overall width	1028
F	Height to centre of connection (at rear of boiler) to air return suction turbine	1619
G	Height to centre of connection (at rear of boiler) to pellet supply suction turbine	1648
H	Height boiler control panel	1408
I	Height to centre of electrical supply access (at rear of boiler)	1064
J	Height to centre rear flue (at rear of boiler)	1052
K	Centre of flue outlet from right side	350



Legend	K Series (mm)
D	150
E	720
F	1570
G	550
H	1028
I	300
K	100

Combustion technology

- Temperature resistant stainless steel burner bowl with patented automatic cleaning.
- Fully automatic dual ignition with two heaters.
- Combustion and power control by combustion chamber temperature sensor and speed-regulated induced draft fan.
- Wood pellet specification Ø 6 mm, length. 40 mm according to EN plus, A1 or pellets DIN plus.

R Series | Navora | Euro | Turbotec | K Series | Compact 25-80 | Compact 100-200 | M300-400

If you want to heat with sustainable, natural energy then please look at our range of exceptional, eco friendly boilers

- HDG split log boilers
- HDG wood chip, pellet and split wood systems
- HDG pellet heating systems
- TDA Thermodual wood and pellet boiler
- Buffer tank, accumulators and thermal stores
- System components
- Euroheat Biomass Energy Cabins

Speak to one of our HDG team

01885 491154

Inspiration and information

www.euroheat.co.uk

Euroheat
Natural Energy Company

Bishops Frome Worcestershire WR6 5AY

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

April 2013 E&OA Product number LI072