



Greenflame



ENVIRONMENTALLY FRIENDLY BIOMASS SOLUTIONS

Environmentally friendly heating

Sustainable heating solutions are at the forefront of Trianco's heating product portfolio. The need to increase the awareness of alternative sources of fuel to fulfil our energy demand has never been so great, not only to alleviate world reliance on fossil fuels but also to encourage more natural sources of energy supply. Trianco's renewable portfolio began with the successful introduction of Activair air source heat pumps, the next step naturally pointed to biomass heating systems.

Why Biomass?

Wood is one of the most natural and sustainable fuel sources available to us, it has a carbon neutral cycle as it releases about the same amount of carbon dioxide into the atmosphere through burning, as it absorbs during growth process.

Controlled in a very similar way to an oil or gas boiler, Greenflame biomass boilers have clean burn credentials and super efficiencies in excess of 90%, meaning the range is a more viable option for properties particularly in rural areas that currently have an oil or gas heating system installed.

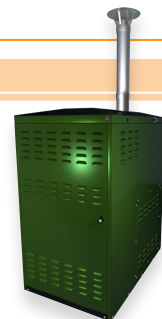


The range

Manufactured to the highest of standards Greenflame Biomass wood pellet boilers are superbly produced with precision engineering. Internal models range in outputs from 15kW to 28kW for domestic use and 85kW - 125kW for commercial application. (15kW - 28kW external options are available). Models also feature 7 step modulation for example, the 28kW modulates down to as little as 8.4kW. A 200kW model will be launched later in the year.

Larger outputs ie. 85kW - 125kW are available complete with automatic vacuum feed, auger drive and 25m hose.

External models are available complete with 100mm twin walled stainless steel flue system (2 metres)



15k - 28kW
External models



15 - 28kW
Internal models

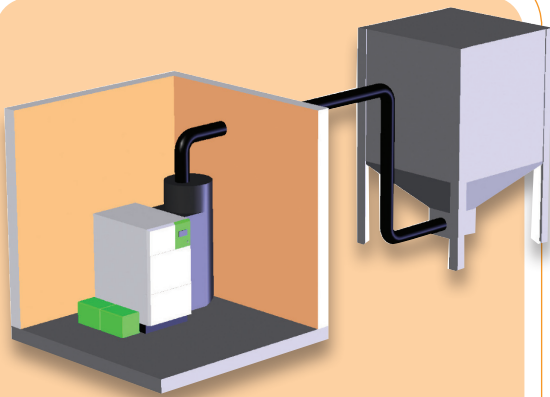


85 - 125kW
Commercial models

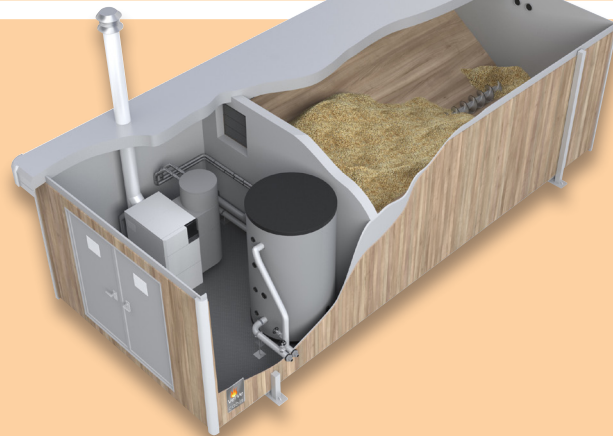
Fuel and usage

Each Greenflame unit houses a substantial pellet store which has automatic feed, giving peace of mind to the user. A warning light also signals when the store requires re-filling. With a simple regular check of the combustion chamber to remove ash and filling the hopper with pellets is all that is required to ensure smooth running of the system.

6mm approved premium pellets are recommended with a moisture content below 10%. High quality pellets have a low ash content (max 0.5%) meaning good combustion, minimum ash production and less wastage is achieved. Pellets are usually delivered in 10kg bags from the supplier, and by placing a bulk order a considerable saving on pellet purchase price can be achieved. Pellets should be stored in a dry area free from humidity. A typical 15kW unit requires re-fuelling every 4 - 7 days dependent on usage and set up via its 100kg hopper store. The main ash pan ideally requires cleaning every 4-6 weeks and lower ash pan once a week to ensure optimum performance.



For larger scale installations a separate pellet store is worth considering, not only to ensure a more continuous supply but also to bring down the cost of pellets even further.



For commercial premises the 'Trianco Eco-lodge' is an ideal solution. Shown above - this biomass Eco-lodge houses a 17 tonne fuel store capacity, biomass boiler and cylinder offering a neat self contained solution. Other specifications available on request.

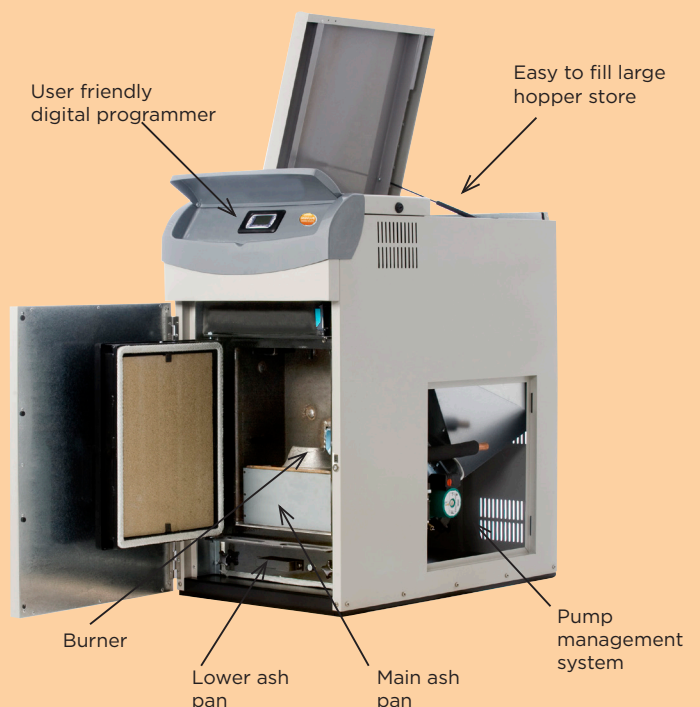
Specifications

Each greenflame unit houses a substantial pellet store which is automatically fed, giving peace of mind to the user. A warning light also signals when the store requires re-filling. With a simple regular check of the combustion chamber to remove ash and filling the hopper with pellets is all that is required to ensure smooth running of the system.

Greenflame PLUS models include the following;

GSM Modem - Is the facility to utilise a normal phone SIM card with a data package (similar to a SIM used in a USB modem for a laptop). The user can then turn on or off the boiler by sending a text to the modem from the phone. A low pellet alert will also be sent to the users phone.

Heat Meter - An approved industry standard heat meter is supplied which can be fitted to the unit to measure heat generated by the boiler.





Environmental and financial Savings

Greenflame is an eco friendly product, it produces carbon dioxide emission savings of up to 7.5 tonnes a year, when replacing another system i.e. solid fuel (coal) or an electric storage system. The financial gain can be significant dependent upon the system it is replacing.

The table below details savings that can be made by installing a biomass unit to supply central heating in a typical three-bedroom semi-detached house with basic insulation.

Fuel replaced	Expected saving	Expected carbon dioxide saving
Electricity	£580 a year	7.5 tonnes a year
Oil	£280 a year	4 tonnes a year
LPG	£720 a year	3.5 tonnes a year
Coal	£300 a year	7.5 tonnes a year
Gas	£100 a year	3 tonnes a year

Figures issued by EST.

Government grant initiatives are in place to encourage installation of renewable technologies such as biomass boilers. The current Renewable Heat Premium Payment (RHPP) scheme offers the homeowner a voucher **worth £950.00 for the install of a biomass system.**

The Renewable Heat Incentive (RHI) currently benefits commercial installations by adopting a feed in tariff approach, payments are made for every kW/H of energy produced on the premises. Domestic biomass outputs are eagerly anticipated to be added into the RHI in 2013, pending government clarification.

The cost per kW/h of wood pellets can be up to 40% less than the cost of oil meaning biomass is a real consideration for properties that have so far had to rely on fluctuating oil prices.

Please visit <http://www.energysavingtrust.org.uk> for the latest information (figures correct at time of print, T&Cs apply)

On commercial outputs ie. 45kW and upwards the current 'Renewable Heat Incentive' (RHI) applies, allowing for a substantial cash back to be achieved.

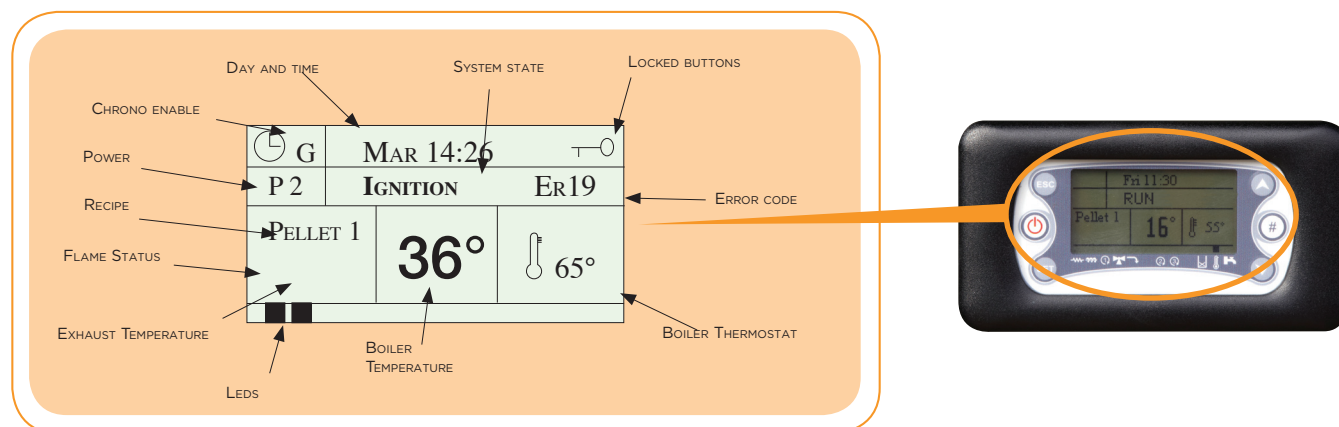


Features

- MCS accredited
- 90.7% + efficient
- Large fuel store capacity
- 7 step power modulation
- Easy to use LCD controller
- Automatic pellet feed
- Integrated pellet store
- Complete with pump and pressure switch
- Up to 7 days continual burning (average usage is 3 to 4 days before re-fuelling)
- Frost Protection
- Low level pellet sensor and warning signal
- AVC control (Air Velocity Control)
- Generously sized ash pan
- No need for buffer tank
- Guarantee: 1 year main parts & 5 year heat exchanger initiatives such as RHPP and RHI
- Tested to EN303-5
- External model includes stainless steel flue system (2 metres)

Digital programmer

Greenflame has a built in digital programmer. This user friendly controller has many features including 7 day, 5 day / 2 day time clock control. It monitors the operation and supply of pellets and provides full fault diagnostics and system parameters. Other features include fully adjustable boiler thermostat and thermistor control.



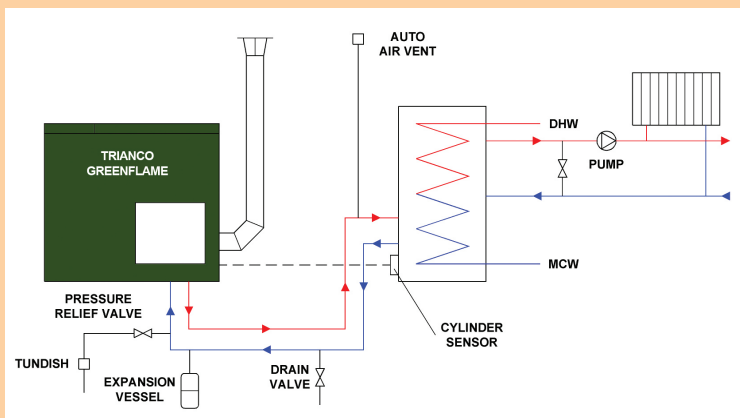
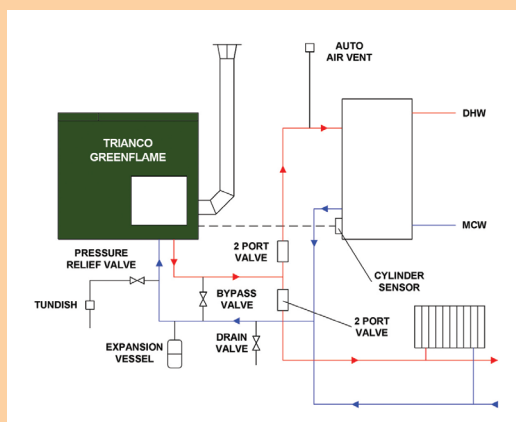
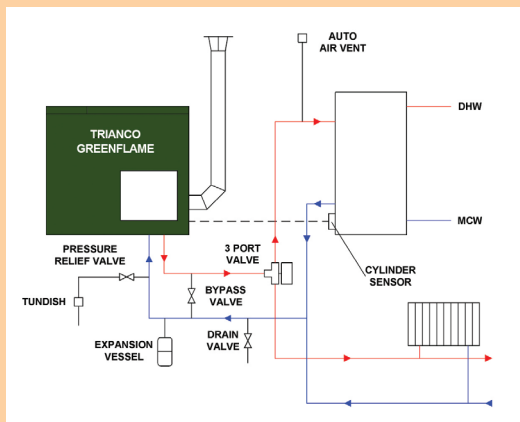
Domestic

Code	Item	Output kW	Width mm	Depth mm	Height mm	Boiler kg
FG3700	Greenflame 15kW Internal	4.8 - 16	600	977	1068	160
FG3701	Greenflame 15kW Internal PLUS	4.8 - 16	600	977	1068	160
FG3702	Greenflame 15kW External	4.8 - 16	600	920	1100	160
FG3703	Greenflame 15kW External PLUS	4.8 - 16	600	920	1100	160
FG3704	Greenflame 25kW Internal	8.4 - 28	600	1057	1100	180
FG3705	Greenflame 25kW Internal PLUS	8.4 - 28	600	1057	1100	180
FG3706	Greenflame 25kW External	8.4 - 28	600	1000	1100	180
FG3707	Greenflame 25kW External PLUS	8.4 - 28	600	1000	1100	180
FG3720	Automatic vacuum feeder					10

Commercial

Code	Item	Output kW	Width mm	Depth mm	Height mm	Boiler mm
FG3708	Greenflame 85kW Internal	25.5 - 85	1760	1085	1817	1950
FG3709	Greenflame 100kW Internal	30 - 100	1760	1085	1817	1950
FG3710	Greenflame 125kW Internal	27.5 - 125	1760	1085	1817	1950

Typical System Layouts



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The Heating Creators