

Wood Log Gasification

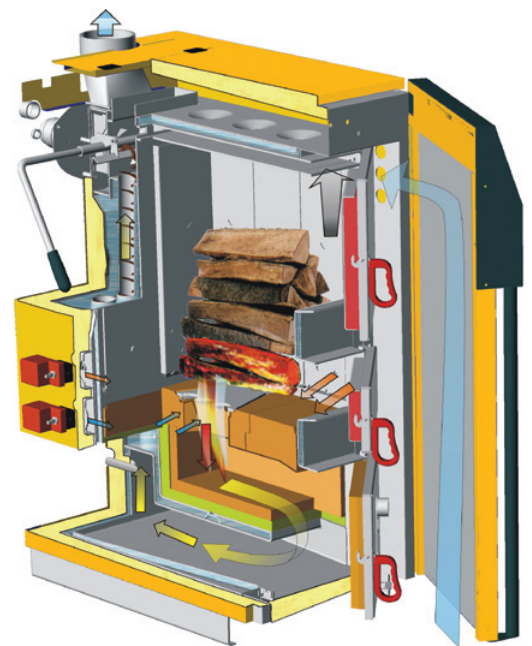


It is widely recognised that we in Ireland need to reduce our dependency on imported fuels. Carbon taxes will further increase fossil fuel prices which will continue to rise as availability of supply decreases. Locally available Wood Logs provide a natural heating fuel which when sourced locally has a lower environmental impact than any other fuel.

- **Lowest cost renewable fuel, 94% efficiency.**
- **Home grown or locally produced fuel.**
- **Future proof against rising energy costs.**
- **Can burn wood logs, waste wood & eco-logs.**
- **Improved Building Energy Rating (BER).**
- **Safe & reliable supply of heat.**
- **Easy cleaning & de-ashing.**
- **Long life & low maintenance.**

How it works (the basics)

- 1** Wood Logs are placed in the boilers main fuel chamber.
- 2** The logs are easily ignited with a match and a little paper if the previous fire has gone out completely.
- 3** Embers preservation means that relighting may not be required if re-fuelled up to 24 hours later (depending on wood used).
- 4** The wood is burned from the bottom down. The gases generated are re-burned in the glow zone at up to 1200°C.
- 5** The heat is managed by the boilers intelligent controller and automatically transferred into a large buffer tank.
- 6** The heat is then transferred into the buildings heating system automatically as required by the time and temperature control.



Installation

A Wood Log Gasification boiler can be installed during construction of a new building or retro fitted to an existing building provided space in a suitable location is available or can be provided.

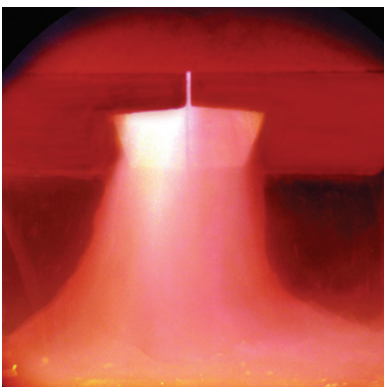
Any existing system can be easily modified to suit wood log gasification heating. 2.5 Tonne of dry logs or waste timber provides approximately the same amount of heat as 1000 Litres of oil or 1000m³ of gas.

Wood log gasification heating is fully compatible with:

Water Heating, Radiator Heating System, Under-floor Heating Systems, Panel & Skirting Heating Systems or any combination of these systems.



Wood logs



Gasification in Glow-zone

Installation process

- The boiler, buffer tank and ancillary items can be located in the corner of a garage, a basement or purpose built boiler house.
- Log fuel stores can be located indoors or outdoors provided the fuel is resting on dry ground, is covered to protect it from rain and allows for air circulation to aid further seasoning/drying.
- In a new build Elementary Energy can work in conjunction with your builder, electrician and plumber in a co-ordinated manner to ensure a smooth trouble free installation.
- In a retrofit we can take care of all aspects of the installation.
- If your old boiler is located in a suitable garage or boiler house the changeover can be straightforward. If not, new pipes may need to be installed between the old boiler location and the new boiler position.
- The new boiler is connected to the heating system.
- The boiler power supply and controls are wired into the new boiler.
- The heating system is flushed, filled and tested.
- The boiler is commissioned (set-up) and left ready to provide heat.

