

Wood Heat at Strawsons

In September 2003 Econergy commissioned a 100 kW fully automatic woodfuelled boiler to provide heat to business units and offices for Strawsons of East Drayton in Nottinghamshire.



Newly converted office units, all with underfloor heating fed by the woodchip boiler

Some 60 tonnes of seasoned woodfuel per year will be sourced from Short Rotation Coppice energy crop plantations on site.



Short Rotation Coppice being harvested on site

Technical summary

- The installation comprises a Veto 100 kW stoker-boiler, Veto Maxi 10m³ fuel hopper and feed auger and Veto 120 kW burner head.
- Combustion is controlled by a Technomatic modulating boiler controller, optimising combustion according to flue gas oxygen concentration for maximum efficiency and minimum emissions.
- The controller automatically modulates boiler output between 30% and 100% of MCR to match demand with the boiler automatically kindling during periods of zero demand.
- Boiler efficiency is greater than 86% (at MCR) and emissions are well within the requirements of the Clean Air Act.
- The boiler is installed in an external boiler house with hot water piped via a pre-insulated underground heat main to feed underfloor heating in the business units.
- The system will deliver an estimated 175,000 kWh / year of renewable heat, avoiding some 56 tonnes of Carbon Dioxide emissions per year.

Woodfuel supply

- Some 60 tonnes of seasoned (30% moisture) woodfuel per year is sourced from Short Rotation Coppice energy crops grown on site.
- Woodfuel is harvested by Renewable Energy Growers specialist Austoff harvester to be seasoned as billets prior to processing into a quality controlled fuel chip.

Grants

- The installation was supported by Econergy’s Bioenergy Capital Grant Scheme contract funded by the New Opportunities Lottery Fund.



Veto 100 kW stoker-boiler, fuel feed from left



The hopper holds up to 10m³ of chipped woodfuel



Technomatic modulating stoker-boiler controller



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