

Pellet Boiler at Ashurst Organics

Introduction

Ashurst Organics at Plumpton in East Sussex have run an organic vegetable box scheme for the Lewes and Brighton area for the past 10 years. In 2004 the owners were able to build themselves a home on the site and opted for solar water heating and a pellet central heating system with under floor heating rather than an oil boiler which was the other option available to them.



The Stove

The heating system is powered by a new Enviro EF Thermo 28 Pellet Stove. The stove has a back boiler so it can run a number of radiators (with a total output of 20kW) and has an efficiency rating in excess of 80%. Together with a 2kW solar water heating systems it provides all the hot water the property needs for washing and central heating with the added advantage of a central source of heat in the form of the stove, which has an output of 5kW, giving a total nominal output for the stove of 25kW.



Connection

The boiler connects up to the normal flow and return of the central heating systems (see above) and fires up 90 seconds after ignition. The top of the boiler opens and keeps a store of 55kg of wood pellets. These are filled by hand and last 3-4 days in normal winter usage—longer at other times of the year. Bigger storage can be obtained with a simple additional flue store unit placed about the hopper of the boiler which would more than triple the storage. The maximum power requirement (to operate the fan and auger feed mechanism) is 800 watts.

The Flue System

The boiler has a double-skinned flue system which is cool to the touch. The outlet is normally kept away from windows and taken at least 60cms above the eaves, or higher if appropriate. There is a small amount of smoke for a few minutes until the system warms up. After this there is no smoke, only a heat haze.

The Fuel

The fuel is bought via Renewable Heat & Power in Devon. Whilst initially being imported via Austria at £140 a tonne plus VAT and local delivery, it will be provided in the Spring of 2005 from UK sources in Ashford, Kent or Shepton Mallet in Somerset at around £100-£110 a tonne plus local delivery. The fuel is stored under a nearby open sided mini-barn. The space required is the equivalent of two pallets of footprint (c. 1.25mx1.25 meters each).



Ashurst Organics

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Technical details

Height:	949mm
Width	641mm
Depth	646mm
Weight	157kg
Heat Output Range	2.5kW to 25kW
Hopper Capacity	55kg
Max water temperature	90°C
Burn Rate	1.0 to 4.5Kg/hr
Flue pipe diameter	80mm
Water capacity	17.3 litres

See also our Information Sheets:

- Wood Pellet Stoves & Boilers
- Central Heating with Wood Stoves
- Emissions from Wood Heating
- Wood Pellet Heating
- Flues & Chimneys

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For more information, please visit www.logpile.co.uk



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