

Eccostove heats Beaconsfield Finnish house

When David Cox and Candy Barker decided to rebuild a new house on the site where Candy was born and where her parents had lived since they built a bungalow there in early 1956, the couple wanted to find a design which would combine modern building techniques with contemporary design to create a home for the Cox family and Candy's elderly mother, Pat.

The Finlodge Finnish kit house (from Edinburgh-based Scandinavian systems) which they chose fitted well on to the sloping site and allowed Pat to have her bedroom within the new house in almost exactly the same position as it was in the now-demolished bungalow that it replaced. Whilst incredibly well insulated (70mm of log backed by 120mm of Kingspan insulation) as you would expect from a design created in the cold climate of Finland, The Coxes still had to decide on a heat source for the open-plan, central core of the house.

Located up a secluded drive off a country lane on the edge of Beaconsfield in South Bucks, the site had no mains gas. So David Cox started looking at wood-burning options that would provide continuous heat to the open plan area throughout the day at what he hoped was an affordable cost. It was then that David saw an advertisement in 'Country Living' magazine, for an UK-designed and innovative stove, the Eccostove, which exhibited exceptional slow heat release characteristics without requiring the ceramic or soapstone 'jackets' that are a typical feature of many Scandinavian-designed models that use soapstone to store their heat throughout the day. Such appliances are typically much larger than the Ecco Stove but do a similar job

The designer of the Eccostove, which is crafted from silicon carbide – the same material used in incinerators and other high heat applications, is David Ashmore who owns two stove shops in Warwickshire and the chimney lining experts, Landy Vent Ltd. Following David Cox's reply to the Country Living advertisement, David Ashmore visited the newly-built log cabin and immediately suggested that the smaller of the two Eccostove models, the E678, would make an ideal heat source for the new home creating a central source of radiated heat which would then be transported by the natural air currents that the silicon carbide body produces, throughout the main

The Ecco Stove uses a labyrinth of flue ways and air channels constructed into the body of the appliance to extract as much heat out of the flue gas (smoke) before feeding it up the flue to the atmosphere. This keeps pollutants down to the bare minimum. As much heat is extracted from the flue gasses as possible to heat as much of the building as possible, rather than the just room the stove stands in.

Innovative use of Silicon Carbide as the whole structure of the stove, incorporating the unique benefits of the material produce a very high temperature in the combustion chamber (typically 900-1100°F) and a catalysing effect to consume the volatile elements in the products of combustion within the Ecco Stove before they exit to atmosphere.

Silicon Carbide has the characteristic of absorbing heat and releasing it slowly. European CE Standards tests carried out on the Ecco Stove prove it still releases 25% of its absorbed heat 7 hours after running up to temperature, but typically the fabric of the building is warmed and even a lower heat release will keep a well insulated building up to temperature 14 hours after 20kg of wood has been burned (in 2 x 10Kg batches).

The stove's output is tested and verified as 4 to 11kW.

Continued on page 2

area of the house. Both David and his wife lead busy lives – he as a photographer and she running two dancing schools providing ballet, jazz and modern training across the South Bucks area.

The Eccostove E678 was installed in September 2011, a couple of months before the hard winter weather set in mid November. Despite David Ashmore’s careful briefing on how to fuel the Eccostove (an early morning burn full of logs to get the stove up to temperature to enable the slow heat releaser over the next eight hours), the Coxes admit that this new fuelling regime took some time to get used to. However, by the time the icy conditions of November and December took hold, they were completely au fait with how to get the best from their Eccostove and it proved highly competent in keeping their house warm through one of the coldest winters of modern times.

As David Cox explains “We get up early each day to light the stove. By the time we set off to drop the children at school before heading for our work projects that day, the stove has burnt most of its load of logs and is beginning to radiate heat out in to the living room. Depending on appointments we may be back during the day but we couldn’t rely on it when selecting the stove that we needed to heat our home. The slow heat release on the Ecco Stove is ideal because it ensures that everywhere is still cosily warm even if we don’t get back in until 4 or 5pm in the evening. A standard stove, with no heat retention capabilities, would be stone cold by then.”

The Coxes are highly delighted with the performance of their Ecco Stove over the last ten months and have had no hesitation in recommending the product to their friends.

Ends.

Continued from page 1

As a result, the efficiency of the stove is tested at 85.3% with a carbon output to atmosphere of only 0.24% average. The Ecco Stove efficiency satisfies the UK’s Department of the Environment, Farming and Rural Affairs’ (DEFRA) smoke control regulations.

Although the Ecco Stove is larger than many others it can be installed in a small room without overheating it because it gently projects its heat over a much larger area than a convention steel or cast stove. The room it stands in will not be hotter by more than 1 or 2°C than surrounding areas (if doors are left open).