

Gonalston Farm Shop



Heat Recovery System provides even greater savings as business grows

Ross and Georgina Mason opened their farm shop over a decade ago, providing the finest produce to the local area. During a recent refit the couple wanted to do their best for the environment so decided to install a DK heat recovery system to harvest the waste heat from the refrigerators to be used to heat the hot water for the store.

The system when it was first installed was predicted to save 98,000 kWh of electricity and 22.9 tonnes of CO2 per annum, but is now saving nearly 50% more due to the success of the store and increased opening hours.

The system is now expected to **save 143,000 kWh** of electricity and **33.4 tonnes of CO2** per annum.

Recovering the heat from the newly installed heat recovery system is a compact 1000 litre tank with 4 internal heat exchangers that can recover **36 kW of free heat** from the refrigeration pack per hour. This means that the recovered heat can produce over 720 litres of hot water per hour.

The DK internal exchangers allow for maximum heat transfer and their twin wall design conforms to regulation EN1717 which allows them to be used for potable water.



The energy saving for providing hot water for the butchery, deli and bakery is over **300 kWh per day**

During the year the system will reduce Gonalston's energy demand by over **143,000 kWh** producing **3 million litres** of FREE hot water

The annual fuel saving at the current energy cap would be over **£30,000 per annum**.

But perhaps more importantly for an environmentally conscious company it will save sending over **33.4 tonnes** of carbon dioxide into the atmosphere every year

That is the equivalent of the company planting nearly 3,500 trees. The average UK tree absorbs about 10 kgs of CO2 per year

