

KEELHAM FARM SHOP



KEELHAM is GREEN

When construction of the new state of the art farm shop was first proposed being green was high on the agenda. With the involvement of DK Heat, Keelham are able to boast about their green credentials. All the hot water for the whole site including the butchery, bakery, busy restaurant and even the restroom facilities is provided by reclaiming the waste heat from the refrigeration plant. Even the offices will be heated during the winter for free.

The system DK Heat supplied for the hot water was a 750 litre storage tank three internal heat exchangers totalling 24kW of heat recovery. The system is capable of generating over 500 litres of free hot water per hour. The heating system has a 300 litre buffer tank with a 12 kW heat exchanger

The heat exchangers for the hot water are a twin wall design which ensures that even in a failure situation that the refrigerant and water can never come into contact with one another. This is a legal requirement under EN1717 for any business handling food

The system is simplicity itself, maintenance free, having no moving parts it is highly efficient due to the innovative design of the heat exchangers that can remove up to 100% of the energy produced by the refrigeration plant.

The system was fitted with an optional heat meter that monitors the real time hot water usage giving Keelham accurate details of the cost



In the first 4 weeks of trading the hot water heat recovery system has saved 4700 kWh and produced 140,000 litres of hot water. The annual energy saving just for the hot water is over

55,000 Kilo Watt Hours

The annual cost saving for the water heating alone is over **£6000** per annum giving a payback of under 2 year.

Keelham can now also boast a reduction in its carbon footprint of **25 tonnes of carbon** a year

