



Nando's & Dext

A tasty pairing



Dext builds sustainable technology that withstands the rigours of real-world use in fast-paced and demanding industries.



Sustainability is not a new idea for Nando's.

The business has had a dedicated sustainability team keeping an eye on its environmental and social impact for the last ten years.

In fact, Nando's has already reduced the carbon footprint of each of its meals by 40% since 2015.

Nando's and Dext first teamed up in 2009, working on a heat exchanger that doubled as an easy-to-clean splashback for behind the chain's high temperature cooking appliances. This clever heat exchanger, called the DexTherm, absorbs heat from the cooking process and transfers it to a hot water cylinder.

So successful was the development of the DexTherm, **there is one in more than 400 Nando's restaurants across the UK.**

So what's the next big idea?

The Client: Nando's

The Challenge: To lower costs, conserve energy and reduce restaurants' reliance on traditional electric and gas heating

The Location: Parrs Wood, Manchester

The Solution: A heat exchanger that harvests spent energy from the extract air stream, allowing it to be used again

The Dext team worked with Nando's to develop a heat exchanger that sits in the building's extract air vent and captures 'wasted' warmth; recouping this spent energy and taking it back inside to heat the restaurant for a second time.

The DexThermic[®] product was officially trialled at Nando's Parris Wood, and proved to be a resounding success.

Dext's Neil Bracewell explains: "The DexThermic captures an already paid-for 'by-product' (the expelled heat from cooking etc) and directs it back into the restaurant's heating and hot water system.

"It uses top of the range Daikin Hydrocube heat pump technology and the warm extract air stream as a heat source. This is a bit like being able to guarantee the weather; much like an air source heat pump working in consistently warm outdoor temperatures.

"The DexThermic gave Nando's a new way to reduce reliance on other heating systems, such as gas heaters or electric door curtains, saving money and energy.

"To put it in context, direct electric heating systems are 100% efficient or less (you pay for 1kWh of electricity, and you get 1kW of heat). Heat pump technology on the other hand, is around 300% efficient. You gain much, much more than you pay for."

The DexThermic recovers waste heat from things like the cooking process, lighting, and from the body heat of diners in the restaurant.

For much of the year at Parris Wood, the system used this recouped energy to provide ALL the space heating and hot water requirements for the entire restaurant without the need for gas or electric heating.

In the UK's coldest winter months, it worked in conjunction with the existing heating system to improve efficiency.

The DexThermic makes such significant savings that it pays for itself in less than two years.

According to data gathered at Parris Wood, Nando's should see savings of **608MW over 5 years.**

Average Recovered Energy <i>(Based on 30°C to 40°C Extract)</i>	28kWh
Average Power Input <i>(The energy to run the system i.e., Heat Pump, Circulating Pump and Controls)</i>	4.2 kWh
Average Energy Output <i>28kW – 4.2kW</i>	23.8kW
Daily Energy Output <i>23.8kW x 14 hours per day</i>	333kWh
Yearly Energy Output <i>333kWh x 365 days</i>	121,545 kWh/annum



Nando's Head of Construction
Michele Matonti said:

*"There's already a
DexTherm in 400+
Nando's restaurants across
the country, and we were
first in line when the
opportunity to develop
the DexThermic rose."*

"As a like-minded company, eager to work ever more sustainably, Nando's is firmly behind what DEXT is doing. Not only do they have this innovative approach to energy and reducing waste – they make sure the technology is robust and practical enough to withstand the challenges of everyday use in high traffic environments.

"After years of scientific research and development, including bespoke wind tunnel analysis, the Parris Wood trial was the final test to prove that the DexThermic achieves exactly what it was designed to do.

"The innovative and robust design means it is resistant against grease build up and doesn't result in an air pressure drop. This means it can be retrofitted into existing air handling systems, and we're looking forward to rolling it out across more restaurants."

“ At Parris Wood,
the DexThermic lowered
overall energy usage,
saved money and
further reduced our
carbon footprint. ”



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