



EVOMAX 2 BOILERS

LITTLECOTE HOUSE HOTEL,
BERKSHIRE

CASE STUDY



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Tony Stockton, Mechanical Project Manager at J&B Hopkins

A MODERN SOLUTION FOR A HISTORIC BUILDING

Littlecote House is a Grade I listed Tudor manor in the Berkshire countryside that is now operated as a 208 bedroom country house hotel and leisure resort by Warner Holidays.

Littlecote House and grounds have been witness to some major historic events during its different guises, from hosting a Roman settlement and a Civil War army, and being the location where the D-Day landings were planned, through to romantic liaisons; it's where Henry VIII met Jane Seymour, his third Queen. With such an expansive past, it's no wonder it boasts the title of England's third most haunted building!

Whilst guests enjoy the historic setting, they still need to be kept warm and comfortable, which is not always easy in a building of this age. So, when the heating system in the old manor house, which is the oldest and smallest part of the overall building, came to the end of its working life, mechanical engineering company J&B Hopkins provided a modern solution in the form of Ideal Commercial Heating's Evomax 2 condensing boilers.

EVOMAX 2: THE 'GO TO' CONDENSING BOILER

Tony Stockton, Mechanical Project Manager (Technical Services) at J&B Hopkins, was responsible for the installation of the Evomax 2 boilers

at Littlecote House, but was not phased by the nature of the site: *"I actually fitted the two original cast iron boilers in 2008 that were in need of replacement! They had performed well over the years, but with one split and the other's heat exchangers blocked up, the time had come to replace them. It also meant we could provide more modern, energy efficient boilers to better meet the needs of the hotel."*

A long-standing Ideal Commercial Heating customer, J&B Hopkins selected three Evomax 2 120kW condensing boilers operating in cascade to heat the old manor house, providing 360kW output in total.

CASE STUDY FACTS: **LOCATION:** LITTLECOTE HOUSE HOTEL, BERKSHIRE | **BUILDING TYPE:** LISTED COUNTRY MANOR HOTEL & SPA
EQUIPMENT: THREE EVOMAX 2 120kW CONDENSING BOILERS IN CASCADE PROVIDING 360kW OUTPUT MOUNTED ON LOW HEIGHT FRAME AND HEADER KIT WITH LOW LOSS HEADER AND PREFORMED INSULATION KITS

"The Evomax 2 is both compact and, with its aluminium heat exchangers, it's also light weight – making it ideal for when access to a plant room is difficult.

Tony Stockton, Mechanical Project Manager at J&B Hopkins"

The Evomax 2 is the UK's number 1 selling wall mounted commercial boiler, and one that J&B Hopkins use regularly: "It's our go to boiler," comments Tony. "It's very reliable, and we have no issues with them, plus we are very used to fitting them." Highly efficient, Evomax 2 has up to 99.6% full load efficiency and up to 110% part load efficiency, can operate at up to 30° ΔT, and boasts a high turndown of 5:1. NOx <40mg/kWh (Class 6) is achieved for all Evomax 2 natural gas boilers, for low emissions. It is available with outputs from 30-150kW, which can be increased to 900kW using six Evomax 2 boilers in cascade.

Evomax 2 is available with a range of accessories, including hydraulic separation, all with market-leading availability, all designed and manufactured in the UK. At Littlecote House, the boilers have been mounted on an Ideal Heating low height frame and header kit, with preformed insulation kits.

HYDRAULIC SEPARATION: ESSENTIAL FOR A 100 YEAR OLD HEATING SYSTEM!

The inclusion of a Low Loss Header was especially important at Littlecote House as the heating system is 100 years old in places and, due to the building's Grade 1 listed status, there was a requirement to reuse as much of the existing heating system as possible. The Low Loss Header provides hydraulic separation between the new boilers and the old system.

Low Loss Headers have a further benefit in that they enable the boiler to operate independently to a system where the load is likely to be variable and the operating

range for the system may not be ideally suited to the boiler. For the boiler, if it was installed directly to the system pipework, a variable flow rate may lead to minimum flow rates for the boiler not being maintained. By keeping both systems hydraulically separate, each side of the system can operate without disturbing the other. The boiler can provide as little or as much heat input as is required, and the system load can vary over a very wide range without affecting the boiler.

ACCESS CHALLENGES

Grade 1 listed status also presented further challenges as Tony explains: "The plant room is located in a 500 year old cellar, which has a very uneven staircase. This makes access difficult, compounded by the fact we had to make sure none of the walls were damaged in the process." Thankfully, the Evomax 2 is both compact and, with its aluminium heat exchangers, light weight.

Furthermore, its ability to be easily cascaded means three smaller boilers can be readily carried down uneven stairs as opposed to one heavy, large boiler, whilst still delivering the output required.

Boiler cascades are also energy efficient, especially at times of the day when demand is low, as they have a higher modulation ratio than a single larger boiler, so there is less need for each individual boiler to cycle on and off to meet changing demands for heating over a day.



Three 120kW Evomax 2 boilers in cascade provide 360kW output

THE FINAL TOUCH – 5-YEAR EXTENDED WARRANTY

Even with J&B Hopkins' extensive experience of installing Evomax 2 boilers, they opted for Ideal Heating Commercial's free commissioning service to both ensure the boiler are operating correctly, and to activate five year warranty to the appliance at no extra cost.



EVOMAX 2



Free commissioning



Made in the UK



Cascade for higher output



BIM

Terms and conditions apply: * 2 year warranty extended to 5 years if commissioned by Ideal Heating.



IDEAL SUPPORT AND CONTACTS

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T: 03330 040 393

E: commercial@idealheating.com

Calls cost no more than calls to geographic numbers (01 or 02) and will be included in any inclusive minutes you have with your telephone service provider.

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