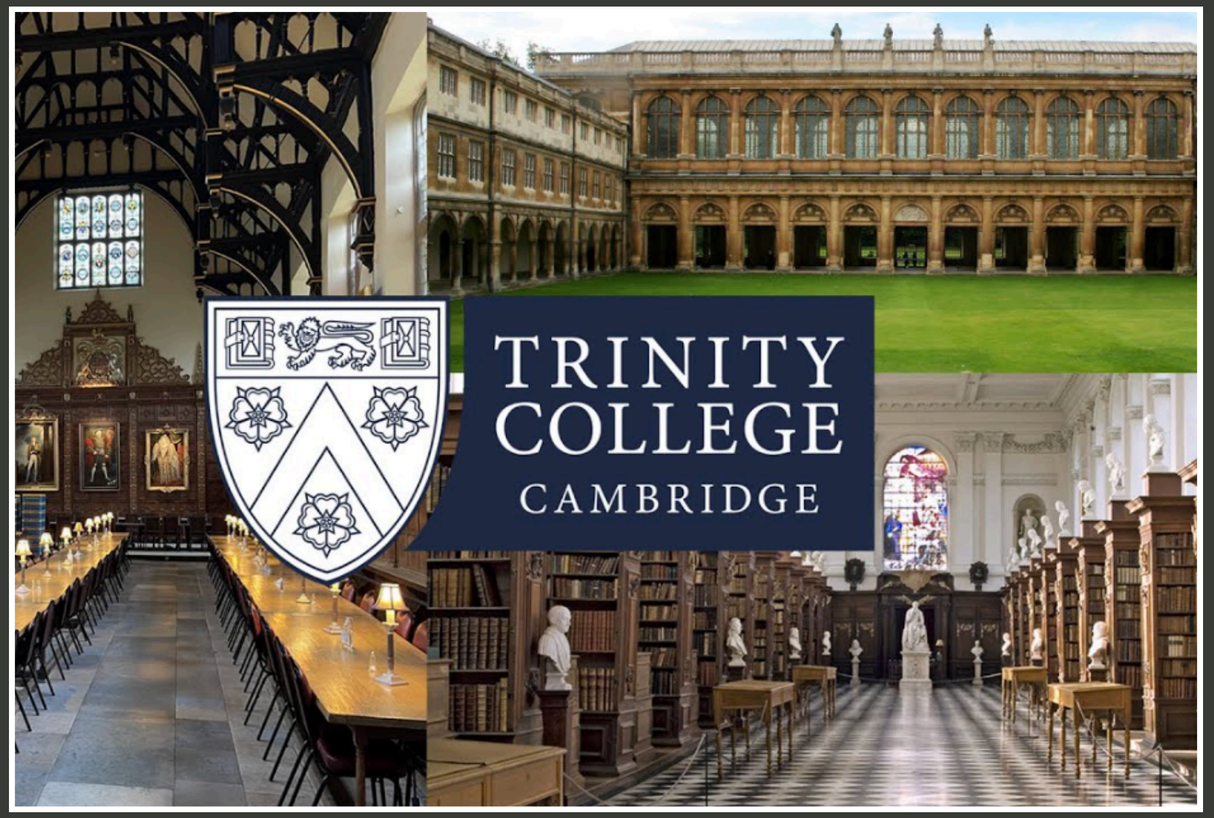
Cambridge University

OCHSNER Heat Pump Case Study



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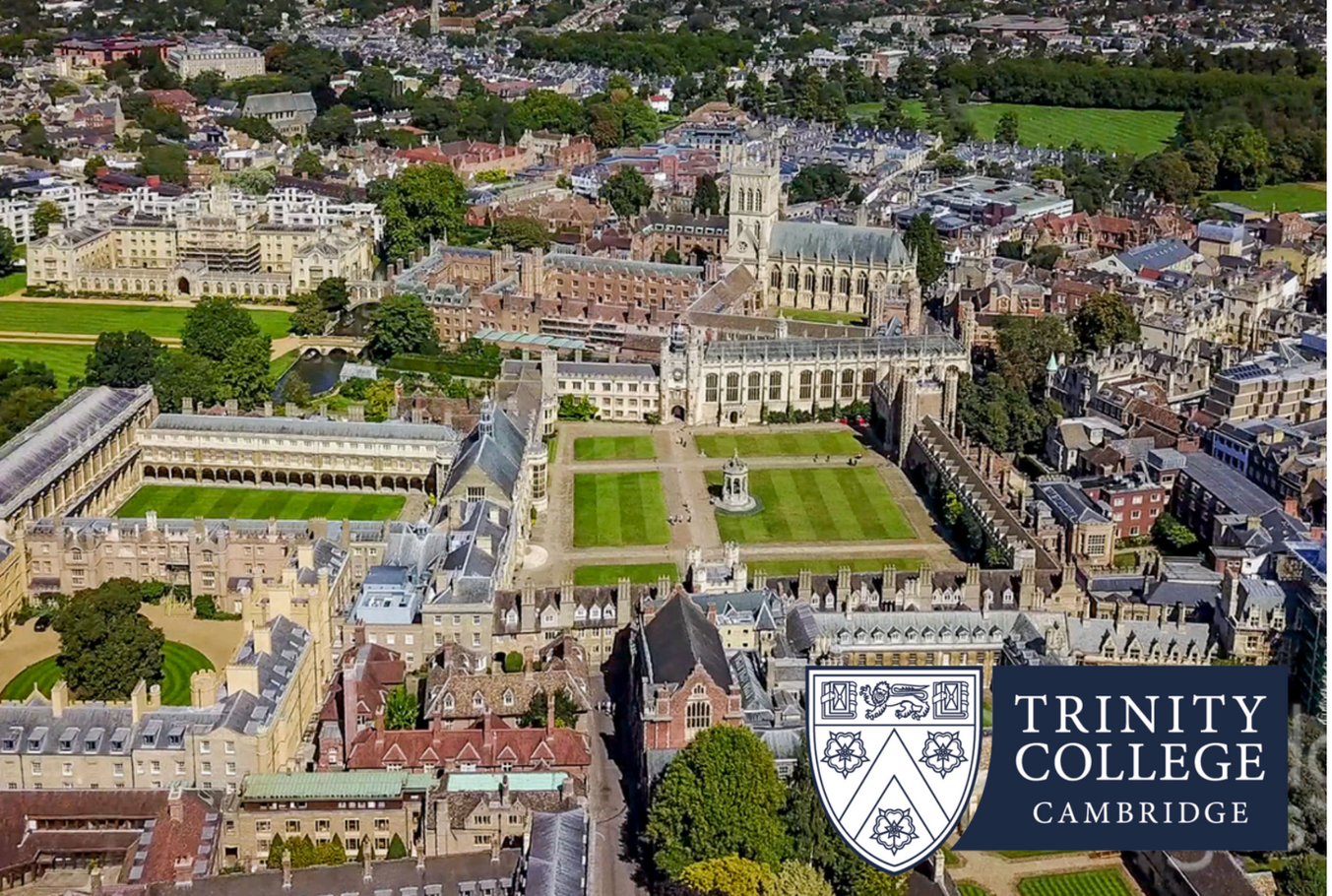
HEAT PUMPS



Trinity College, Cambridge, is a venerable institution, founded by Henry VIII in 1546, with an estate that encompasses a range of Grade I-listed heritage assets across the city.

Summary of Changes

Trinity College is looking ahead as it sets ambitious decarbonisation targets. The College aims to achieve net zero emissions by committing to reducing scope 1 and 2 emissions and is formulating a strategy and timeline to meet these objectives.

Currently, the largest contributor to the College's operational carbon footprint is the range of gas-fired boilers that heat its diverse buildings, which vary in age and energy efficiency. Gradually updating these gas boilers across the estate will necessitate a thorough economic assessment. This assessment must consider the expected lifespan of current infrastructure, as well as establish a pathway for the phased replacement of systems with modern low-carbon electric alternatives, potentially incorporating air-source heat pump technologies.

One significant challenge lies in retrofitting systems within listed heritage structures, as this severely restricts the use and placement of renewable technologies.

The OCHSNER Air Hawk 1850 emerged as an ideal solution to help the College meet its sustainability objectives. Unlike the original plan to install a ground source heat pump that would require digging up the North lawn, the 1850 operates efficiently with the existing pipework and radiators. This makes OCHSNER one of the few truly suitable options for listed buildings and large-scale retrofits.

For more information regarding OCHSNER heat pumps contact our England and Wales team below.

sales@warmetek.co.uk www.warmetek.co.uk

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The HAWK 1850 - Heating and Cooling

Indoor unit: 1289 x 600 x 680 [mm]
Outdoor unit: 1461 x 2268 x 1070 [mm]
Flow temperature max: 60 [°C]
Possible building heat load: 24-51 [kW]
SCOP: 4.74
Energy efficiency class: A+++

The OCHSNER Heating Solution

The success of a decarbonisation project like the one at the Trinity College Cambridge hinges on selecting the right technology. The OCHSNER HAWK 1850 air source heat pump was chosen specifically for its unique combination of features that make it exceptionally suited for large, complex, and sensitive environments.

Unseen and Unheard Performance

A key advantage of the OCHSNER 1850 platform is its ability to be installed with complete discretion. For a location famed for its breathtaking courtyards and iconic architecture, there could be no noisy outdoor units. The 1850 system integrates seamlessly with the estate's infrastructure, operating silently in the background. It delivers robust heating performance without any aesthetic or acoustic impact, ensuring the timeless beauty of the college remains undisturbed.

Institutional-Grade Reliability and Longevity

Trinity College thinks in centuries. The infrastructure it invests in must be built with a similar long-term vision. OCHSNER's commitment to quality and durable engineering ensures our systems are built for an operational lifespan of well over 20-25 years. By housing all critical components within the building, they are protected from the elements, guaranteeing enduring reliability. This institutional-grade construction provides the long-term peace of mind required for a guardian of global heritage.

Replacing fossil fuel systems in vast, complex buildings requires immense heating capacity. The OCHSNER 1850 is engineered for exactly these large-scale applications, providing significant heat output with market-leading efficiency. By choosing OCHSNER, Trinity College has taken a monumental step in its decarbonisation journey, drastically cutting its carbon footprint and aligning its historic legacy with a responsible, sustainable future.

Ideal for Heritage and Listed Buildings

Working with historic and listed buildings presents unique challenges, as planning regulations rightly demand minimal aesthetic and structural impact. The AIR 1850 is perfectly designed for these scenarios.

The split system results in a significantly lighter and more aesthetic outdoor unit, as it doesn't house the heavy compressor. This reduces the structural load on historic roofs or walls and allows for more discreet, flexible placement options. They can even be placed up to 16 meters away from the building.

At the forefront of innovation since 1978, Ochsner heat pumps are engineered with cutting-edge technology to surpass the highest performance and environmental benchmarks. Each Ochsner system is a testament to our commitment to harnessing natural resources with exceptional efficiency to minimise the ecological footprint of your home. Our dedication to a sustainable future is matched by our pursuit of designing whisper-quiet heat pumps that preserve the peace and quiet of your living environment.

By choosing Ochsner, you are not just selecting a superior heating and cooling system; you are embracing a philosophy of environmental stewardship and technological leadership. Experience the Ochsner difference: where innovation, efficiency, and silence converge.

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