

# Cirencester College



## Cirencester College learns to embrace sustainability with Daikin's R32 Heat Recovery System

In the heart of Gloucestershire, Cirencester College has made a powerful statement about its future in recent years, with newly constructed and refurbished facilities that reveal a clear commitment to the green economy. One recent project, the refurbishment of its 1960s era C-Block Art facility, begun in 2022 and completed 1 year later, was more than an investment in infrastructure, it firmly placed sustainability and innovation at the forefront.

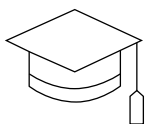
### Raising the bar for sustainability in education

As part of its wider sustainability strategy, Cirencester College wanted a system that would both lower its environmental footprint and offer enhanced comfort for staff and students. Working with Smith Consult, EG Carter

Ltd, and Envira-Mech Services Ltd, the College opted to install Daikin's latest VRV 5 R32 Heat Recovery System, a high-efficiency, low-impact HVAC solution that exemplifies what's possible in modern educational buildings.

"Sustainability is no longer a nice-to-have, it's a core part of how we make decisions at the College," said Paul Watson, Head of Estates at Cirencester College. "This refurbishment was about creating an environment that reflects our values: low-carbon, flexible, and fit for the future."

The C-Block refurbishment forms part of a broader initiative to create future-proofed, energy-efficient learning spaces for students, studying A-levels, T-levels and vocational courses. We offer technical T-level qualifications in a diverse range of subjects including Design, Survey and Planning for Construction and Engineering. "T-Levels are preparing students for tomorrow's industries," noted Paul, "so it's only right that their learning environments reflect the cutting edge of building technology."



EDUCATION



### Design for change

The design and specification for the new system were developed by Smith Consult, with installation carried out by Envira-Mech Services Ltd., with a clear goal in mind: maximise energy efficiency while integrating seamlessly into the building's structural limitations. The solution was Daikin's VRV 5 R32 Heat Recovery system, Daikin's leading-edge system that uses R32 refrigerant - a low global warming potential (GWP) alternative to traditional gases.

"The College wanted the most sustainable and future-ready system available," explains Andy Wright, Director of Envira-Mech. "Daikin's R32 Heat Recovery product ticked all the boxes, both from a design and performance standpoint."

With the help of EG Carter Ltd, who led the building works, and Envira-Mech, who undertook the mechanical installation, the collaborative team delivered a solution that significantly modernised the building's core systems, replacing outdated boiler and radiator-based heating with a full Daikin heat recovery network.



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**Andy Wright, Director**  
Envira-Mech

## Smarter choices, smarter spaces

The transformation wasn't just technical, but also spatial. The three-storey C-Block was adapted to become a multi-purpose creative hub. The ground floor retained dining and kitchen facilities, while the upper levels were reshaped into open-plan classrooms and creative art workshops. These spaces now benefit from integrated heating and cooling, helping to maintain comfortable conditions all year round.

"Previously, the building relied on a failing boiler system," says Andy Wright. "The new setup provides not just efficient heating, but the added benefit of cooling - something that's becoming increasingly important in educational environments."

The technical solution involved installing three VRV 5 outdoor units, connected to a series of wall-mounted and ceiling cassette indoor units, with branch selector boxes enabling full heat recovery across multiple zones. The choice of R32 refrigerant was a key factor in the College's decision. "We want to be early adopters of sustainable HVAC technology," adds Andy. "R32 offers a significantly reduced GWP, which makes it a future-facing option for schools like this one."



## Delivered with care and safety

For Envira-Mech, this was not the first time working at Cirencester College. "We've delivered a number of successful projects here," Andy continues. "So, when EG Carter came to us again, the process was smooth. We knew the site, we understood the expectations, and we were determined to deliver a best-in-class installation."

Installation took place across a nine-month window, from December 2022 through to September 2023, and included all aspects of the system - refrigeration pipework, condensers, fan coil units, condensate pumps, and more. "We ensured full compliance with EN378 standards throughout," Andy notes. "Our focus is always to deliver systems that not only work efficiently but meet the highest safety and regulatory benchmarks."

To further enhance quality, Envira-Mech worked directly with Daikin engineers to oversee the commissioning process. "As a Daikin D1+ Partner, we're proud to be associated with projects that raise the bar. For us, it's not just about ticking boxes—it's about showcasing what sustainable HVAC looks like when it's done properly."



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### Education through example

The system isn't hidden away, but fully on show, offering students and visitors a living example of sustainable design in action. "We want our buildings to teach, just like our courses do," says Paul Watson. "Having a visible, functioning example of best-practice energy technology, like the HVAC system, encourages students to think differently about tech and the environment."

With the project complete and the system fully operational as of end 2023, Cirencester College can also point to similar solutions elsewhere on campus. "The Art Block refurb was just one of a number of recent campus constructions in the past few years that has set a new benchmark for us," Paul concludes. "It's the kind of future-proof infrastructure we plan to replicate, going forward." Thanks to Daikin's R32 technology, a strong collaborative design and installation team, and the College's own commitment to sustainability, the C-Block refurbishment is more than a simple upgrade, it's a step towards a cleaner, smarter future for this forward-thinking educational establishment.



### Kit List

| Model           | Description                       | No of units |
|-----------------|-----------------------------------|-------------|
| REYA            | VRV 5 Heat recovery outdoor units | 3           |
| FXFA            | Roundflow cassette                | 15          |
| FXAA            | Wall mounted indoor unit          | 14          |
| 4MxM80A         | Multi Split outdoor unit          | 1           |
| FVXM            | Floor mounted unit                | 2           |
| CYQS200DK100FBN | Small Air curtain                 | 1           |
| ERQ100AV1       | Ventilation unit                  | 1           |
| DCM601B51       | I-Touch Manager                   | 1           |
| BRC1H52W        | Madoka controller                 | 26          |



For further details visit our website:

[https://www.daikin.co.uk/en\\_GB/about/case-studies/cirencester-college.html](https://www.daikin.co.uk/en_GB/about/case-studies/cirencester-college.html)

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