



ICG HEAT PUMPS
Low Carbon Heating Solutions



100 Hagley Road, Edgbaston, Birmingham

Project Background

100 Hagley Road underwent a major refurbishment to transform an older office building into a modern, energy-efficient commercial workspace. The scheme included substantial structural and internal works, along with a full upgrade of the building services to support contemporary occupier requirements. As part of this project, ICG Heat Pumps supplied the heating and cooling plant serving the fan coil system, helping deliver year-round comfort and improved operational efficiency.

The building was originally an older office asset and was comprehensively reworked to create a higher-quality, more flexible space for modern occupiers. The refurbishment also increased the building's performance and marketability, supporting long-term asset value for the owner.

M+E contractor Novus Mechanical skilfully installed the full M&E services in record time, while working around existing tenants in the partially occupied building.

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James McGugan, NOVUS Mechanical
Director and Project Manager, commented:

“ The tight project programme required detailed planning and communication with the client to ensure that the buildings existing tenants were not disturbed while the works were taking place. ICG were available at short notice for both pre-commissioning and commissioning helping us to meet the completion date. ”

The Challenge

The existing building required a full repositioning to meet modern commercial expectations. The refurbishment needed to:

- Improve the building's environmental performance
- Deliver reliable heating and cooling to all occupied areas
- Support fan coil distribution across the refurbished office space
- Provide efficient simultaneous heating and cooling where required
- Help improve the EPC rating and ensure the building remained lettable
- Be completed in very short programme to avoid lost rents





A key consideration was compliance. If the building had remained below an EPC rating of E, it could not legally have been sold or let. The refurbishment therefore needed to deliver a meaningful improvement in building performance, not just a visual upgrade..

The Solution

After consulting with ICG Heat Pumps, M&E consultant Syntegral specified a Clivet-based HVAC solution. They chose the Clivet Solution due to the equipment's efficiency and comparatively short lead time.

Clivet WSAT-YS4 100.4 SPINchiller

- Cooling-only chiller
- Inverter-driven, twin circuit unit
- Cooling output: 265 kW
- SEER: 4.67
- Supplies cooled water at 6/12°C to the fan coils

Clivet WSAN-YSC4 120.4 SPINchiller

- Simultaneous heating and cooling
- Inverter-driven, twin circuit unit
- Cooling output: 308 kW
- Heating output: 317 kW
- SEER: 4.74
- SCOP: 3.93
- TER: 7.78
- Supplies cooled water at 6/12°C
- Supplies heated water at 45/40°C

The 4-pipe heat pump was particularly well suited to the building because it can provide heating and cooling at the same time, using the same electrical input energy. This increases overall system efficiency and makes it ideal for a multi-zone office building where different areas may require different temperature conditions at the same time.

Outcome

The refurbishment delivered a significant improvement in building performance and usability. Most notably, the EPC rating improved from F to C, bringing the building into a much stronger position for compliance and Lett ability.

This improvement was critical because buildings rated below E cannot be sold or let under current minimum energy efficiency rules. By improving the building to EPC C, the project protected the asset from obsolescence and strengthened its appeal to occupiers and investors alike.

The completed building now offers:

- Improved thermal comfort
- Better energy performance
- More efficient year-round operation
- A modern fan coil heating and cooling solution
- Enhanced occupier appeal
- Greater asset value for the owner

Summary

ICG Heat Pumps supplied the Clivet heating and cooling solution for the refurbishment of 100 Hagley Road, helping support a major transformation of the building from an outdated office block into a modern commercial space.

With EPC performance improved from F to C, the project demonstrates the value of combining smart refurbishment with high-efficiency HVAC design.

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