

Case Study

A future-proofed chiller solution for a future-proofed working environment





4 Angel Square is a net zero 200,000 sq ft contemporary office located in the heart of NOMA's thriving business district.



With excellent transport links and Manchester's food, drink and cultural offerings on the doorstep, NOMA is leading the way in creating sustainable, healthy workplaces for the city and for the future*.

4 Angel Square is a pioneering project which is Designed for Performance. This means that the building services within the office building must match its sustainability and energy efficiency requirements.

To meet this condition, the building owners opted for one **Mitsubishi Electric EW-HT** water-to-water heat pump and two i-FX-Q2-G05 chillers.

*4angelsquarenoma.co.uk



les.mitsubishielectric.co.uk



These low noise, high performance INTEGRA chillers are 4-pipe air cooled systems which utilise VSD screw compressors and EC fans. They are designed to produce chilled and hot water simultaneously and use lower-GWP R513A refrigerant.

INTEGRA **R513A**

This means they are not only the perfect match between energy efficiency and high performance, but they also comply with F Gas Regulations making them a future-proofed option for both new construction and retrofit projects.

The NOMA project not only looks ahead to net zero 2050, but it also looks across the board at carbon usage including whole life carbon, operational carbon and embodied carbon. It addresses all the elements that every commercial new build and investor should prioritise.

4 Angel Square not only delivers on sustainability, but it also aims to provide a healthy workspace with wellbeing at its heart. The indoor environment is therefore just as important and a heating and cooling system which provides excellent occupant comfort was essential.





To ensure comfort is maintained, and to reduce any risks of system downtime, the installation was commissioned by **MELServe** and will be serviced and maintained with a 7-year MELServe Planned Preventative Maintenance (PPM) contract.

MEL>SERVE

By Mitsubishi Electric



"This was a great project to be involved in as it's been built to address our UK net zero challenges and focuses on continual operational excellence by ensuring a robust service and maintenance solution is in place"

says Kevin Wilcott who works at MELServe, Mitsubishi Electric.

"MELServe, By Mitsubishi Electric is our aftersales and lifecycle solution available to all outsourced facilities companies and in-house facilities teams where Mitsubishi Electric equipment or any brand of chiller is installed."

4 Angel Square is accredited with Net Zero Carbon in operation, 5-star NABERS rating at design and BREEAM outstanding design; and is on track to receive both in operation, achieving an EPC rating of A.

It also highlights the use of energy efficiency air source heat pumps as one of its key features, emphasising how sustainable and renewable heating and cooling systems are an essential part of our decarbonised future.



Installation Summary



Country of origin: United Kingdom - Italy - Turkey - Japan - Thailand - Malaysia. @Mitsubishi Electric Europe 2024. Mitsubishi and Mitsubishi Electric are trademarks of Mitsubishi Electric Europe B.V. The company reserves the right to make any variation in technical specification to the equipment described, or to withdraw or replace products without prior notification or public announcement. Mitsubishi Electric is constantly developing and improving its products. All descriptions, illustrations, travings and specifications in this publication present only general particulars and shall not form part of any contract. All goods are supplied subject to the Company's General Conditions of Sale, a copy of which is available on request. Third-party product and brand names may be trademarks or registered trademarks of their respective owners.

Note: The fuse rating is for guidance only and please refer to the relevant databook for detailed specification. It is the responsibility of a qualified electricial release rating based on current regulation and site specific conditions. Mitsubishi Electric's air conditioning equipment and heat pump systems contain a fluorinated greenhouse gas, R410A (GWP:2088), R290 (GWP:3), R32 (GWP:675), R407C (GWP:1774), R1349 (GWP:1430), R5134 (GWP:466), R454G (GWP:466), R454G (GWP:4424e (GWP:7149, R1234f (GWP:44), These GWP values are based on Regulation (EU) No 517/2014 from IPCC 4th edition. In case of Regulation (EU) No.526/2011 from IPCC 3rd edition, these are as follows. R410A (GWP:1975), R32 (GWP:550), R407C (GWP:1650) or R134a (GWP:1300).

Effective as of January 2025



