

## HFO CHILLER COOLS NEW CENTRE FOR SUSTAINABLE CHEMISTRY AT THE UNIVERSITY OF NOTTINGHAM

Cool-Therm, best known for its joint development of the award-winning Turbomiser chiller, is pioneering in a fresh direction with the application of HFO refrigerant in a traditional reciprocating compressor-based chiller.

The company has supplied an HFO-based reciprocating chiller to the University of Nottingham, where it is being used to cool its new Centre for Sustainable Chemistry, built by Morgan Sindall and designed to be carbon neutral and have excellent environmental credentials.

### Environmental credits

The refrigerant HFO1234ze was chosen due to its very low global warming potential (around 5-6), which attracts additional BREEAM and LEED credits.

The 60kW ducted VHR chiller, manufactured by Italian company Geoclima, is equipped with refrigerant leak detection and an automatic pump down system, to isolate the plant from the building in the event of a leak.

Given the educational setting, noise emissions were also an important design consideration. Acoustic control is used on both the intake and discharge sides of the plant with special air intake louvres, designed and installed by the contractor on the project, Imtech Engineering Services Central.

### Low GWP cooling

Martin Sharman, who heads up Cool-Therm's Midlands office, said: "The project demonstrates the increasing interest in the market for low GWP cooling solutions. There is no doubt a change taking place among forward-thinking consultants and end users.

"As a result of the new F-Gas Regulation, and the question mark over the long-term future of traditional HFC refrigerants, people are understandably looking for alternatives."

He added: "Fortunately, we have the bases covered with our HFO and HC options, which in the case of HFO refrigerant also covers the Turbomiser chiller. This provides arguably the ultimate lean and green chiller-refrigerant combination on the market today."



**Above: The new Centre for Sustainable Chemistry building at The University of Nottingham.**

**Below: The HFO chiller in situ in the plant room.**



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