

Proof of excellence

INDEPENDENT tests carried out by a leading UK consultancy have proven the exceptional energy performance of the Turbomiser chiller.

Tests carried out by Mike Creamer of Business Edge Ltd on an operating Turbomiser chiller at Geoclima's factory in Italy showed exceptional COPs of up to 15.5 at typical mid-season conditions, with average performance of between 5 to 7. Overall, compressor isentropic efficiency was over 77%.

Commenting on the findings, Mike Creamer said: "These are excellent results, and appear to confirm positive claims being made for the Turbomiser technology. I would say that the Turbocor compressor represents perhaps the best single item of engineering, involving the combination of several technologies, that I have seen in the last 50 years."

"The key is the use of almost frictionless magnetic bearings, highly flexible inverter control to match output to load, and a well-designed economiser to further boost efficiency. The overall package delivers exceptional performance, that can save end users substantial sums in ongoing running costs."

He added: "Moreover, Geoclima have produced a range of superb and well-considered designs that feature excellent condenser coil construction, a flooded evaporator with liquid level control, economiser circuits

and a dedicated control system that integrates well with the Turbocor compressor's Electronic Management System"

Turbomiser II

The latest version of the chiller, Turbomiser II, was recently launched following a two-year development programme by pioneering Italian manufacturer Geoclima and UK companies Cool-Therm and Klima-Therm.

Building on the success of the first generation Turbomiser, it can achieve EERs of 10 and above without the need for additional free-cooling circuits and associated glycol. This saves both on initial cost and ongoing pump energy.

As a result, the Turbomiser II can reduce end users' power bills by between 30% and 50% – while at the same time dramatically cutting carbon emissions. On some applications, the saving can cut pay-back time to less than a year.

A leading UK leisure company is installing the first Turbomiser II in the UK at its headquarters in London. The installation will provide cooling for computer servers and comfort cooling for office staff, required as a result of expansion in the company's online business.

The chiller is available in capacities from 250kW to 1.5MW. Energy savings will be realised in any installation compared to traditional chillers, since the higher



efficiencies are evident across the output range; but Turbomiser II is especially suitable for data centres, large retail developments and buildings that have a constant base load. Hospitals and

hotels, with their need for all-year-round cooling, are also excellent applications.

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