

Turbomiser III is the bee's knees

COOL-THERM'S new Turbomiser III Adiabatic Advantage chiller uses new adiabatic technology which can reduce ambient temperatures in the immediate vicinity of coils by up to 8°C, lowering condensing temperatures and improving the chiller's energy performance.

This, when combined with its Turbocor compressors, EC fans and liquid pump amplification (LPA) system, can help deliver energy savings of more than 50% compared with conventional screw and reciprocating chillers, according to Cool-Therm.

The adiabatic system is fed by nebulised water, which is absorbed by a porous natural-fibre honeycomb array facing condenser coils. The system can be set to activate automatically at a predetermined external temperature.

The evaporative process is fed directly by UV-sanitised water, overcoming problems related to standing or recirculated water – and avoiding risks of legionella and bacteria build up, while keeping maintenance costs low.

Water consumption is frugal, with a standard unit in UK conditions using around £600 worth of water a year to deliver energy savings worth some £8,000.

Joint development

The Turbomiser III is the result of five years' development by Italian manufacturer Geoclima and UK companies Klima-Therm and Cool-Therm. Helped by its LPA system, it can achieve EERs of 10 and above without the need for additional free-cooling circuits using expensive glycol, saving both on initial cost and ongoing pump energy.

The adiabatic system increases chiller



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capacity at peak load conditions, enabling it to cope with high ambients that might otherwise overwhelm a standard chiller. Combining the LPA and Adiabatic Advantage technology improves the efficiency of the chiller at both low and high ambients. Roberto Mallozzi, md of Klima-Therm, says: "The increase in headroom is useful, given the general rise in ambients we are witnessing. It gives end users a big extra margin for confidence that an installation can cope with any eventuality – particularly important in critical applications such as data centres or dealing rooms."

Ken Strong, md of Cool-Therm, said:

"The initial cost of the adiabatic advantage and ongoing running costs is dwarfed by the energy savings by a factor of ten. A first generation Turbomiser chiller installed at Blue Reef/IMAX in Bristol, which also uses dock water for cooling, is performing with an EER of 12.9. The latest generation would improve further on this."

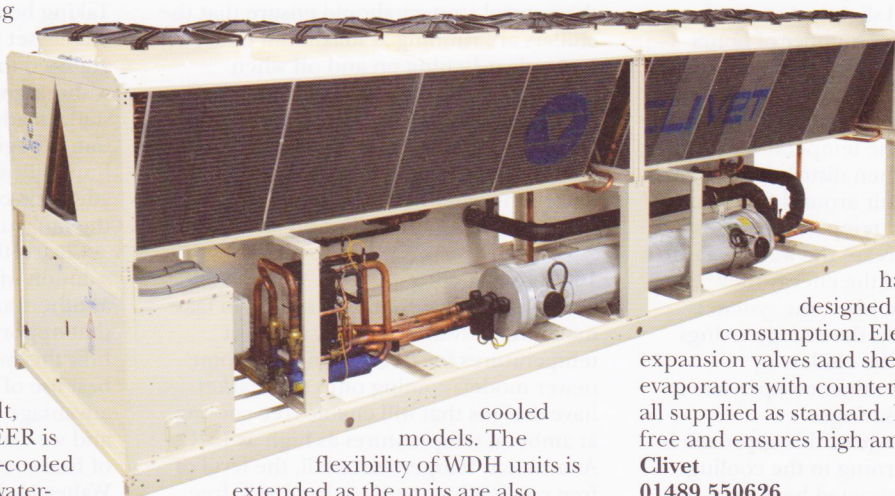
The Turbomiser III is available in capacities from 250kW to 1.5MW, and can be applied in most commercial and industrial applications.

Cool-Therm
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Clivet Class A chillers provide sustainable comfort

Clivet's Class A chillers are being well received following the company's introduction of screw chillers in water-cooled and air-cooled versions.

Providing sustainable comfort, the WDATA R134a range features stepless capacity control and an unparalleled efficiency, says Clivet. This has been achieved by Clivet equipping the range with heavy duty semi-hermetic compressors, double screw technology and employing an economiser assembly. As a result, the nominal energy efficiency EER is greater than 3.1 on WDATA air-cooled models and over 5.0 on WDH water-



suitable for heat pump operation in both water-source and geothermal applications.

Clivet reports that the components have all been

designed to reduce energy consumption. Electronic expansion valves and shell and tube evaporators with counter-flow design are all supplied as standard. R134a is ODP-free and ensures high ambient operation.

Clivet
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cooled models. The flexibility of WDH units is extended as the units are also