



Case Study **HOSPITAL**



Carrier Chillers Chosen for New MRI Facility at University Hospital of Wales



A new multi-million pound MRI scanner facility at NHS University Hospital of Wales, Cardiff, is being cooled by high-efficiency chillers from Carrier.

Three Carrier AquaSnap® 30 RBP air-cooled liquid chillers have been installed by Whitehead Building Services for main contractor Kier, under the Designed for Life construction procurement and delivery framework.

The chillers deliver a combined cooling capacity of 900kW, and provide the stable, reliable cooling required to maintain the high-tech diagnostic equipment in peak condition. Chilled water is supplied to the scanners at 6 deg C and returned at 12deg C, to begin the cooling cycle again.

Equipped with Carrier's Greenspeed® intelligence, the chillers have variable-speed water pumps and condenser fans to precisely match cooling output to current load conditions. This enables the system to operate with outstanding part-load efficiency, ensuring low carbon emissions and reduced running costs over the life-time of the plant.

Exceptional resilience

"These units offer exceptional resilience as they have three refrigerant circuits, and are therefore ideal for use in such critical applications," said Russ Tyrrell, senior sales engineer for Carrier. "In the unlikely event of one circuit going out of operation, the chiller can continue to operate and deliver up to 66% of cooling capacity, maintaining a high level of cooling."

Variable speed fans also deliver low noise, an important consideration given the hospital application, plus extended operational life due to reduced wear and tear on compressors and fan motors.

"The new scanning facility provides an important diagnostic and therapeutic service to the hospital, and it is vital the machines are kept operational," said Martyn Brown, who led the project for Whitehead Building Services. "We selected Carrier chillers because of their reliability and the fact it is proven technology. There are three existing Carrier chillers in use at the hospital, and they have an established track-record."

To protect the units from corrosion in the coastal environment, condensing coils are coated with Carrier's Enviroshield coil coating. This factory-applied flexible epoxy coating completely encapsulates and isolates the aluminium metal of heat exchangers from the ambient environment.

EQUIPMENT

3 x Carrier AquaSnap® 30 RBP air-cooled liquid chillers