



Case Study **WELCOME CENTRE**



Efficient Heating Solution for New Welcome Centre at RHS Garden Wisley

A new multi-million pound Welcome Centre at the Royal Horticultural Society's (RHS) flagship garden at Wisley, Surrey, will be heated by high-efficiency Carrier AquaSnap® air-to-water heat pumps.

The development is part of a major investment by the RHS in the world-renowned garden, adding new visitor facilities designed to celebrate the best in horticulture. The spacious Welcome Centre is designed as a new arrivals space for an anticipated 1.4 million visitors per year, and includes a 100-seater restaurant, shop, and one of the largest plant centres in the UK.

The centre's heating system includes two Carrier AquaSnap 30RQP air-source heat pumps, with a combined capacity of 600kW. The scroll compressor-based units are highly energy efficient, harvesting "free" energy from outside air and upgrading it for use within the building. The low noise units have a significantly reduced refrigerant charge due to use of Carrier's innovative compact Brazen Plate Heat Exchangers, further reducing environmental impact.

James Meadows, Carrier applied products sales engineer, said: "AquaSnap's compact all-in-one packaged design is optimised for part-load applications where high Seasonal Coefficients of Performance (SCOP) are required. It includes an inbuilt hydronic module that speeds up installation and commissioning on site and reduces overall project costs."

The Carrier heat pumps, specified by NG Bailey as part of the design and build project, are located remotely from the building and connected to the centre's heating system via 80m of insulated underground pipework.

Robert Steed, senior mechanical project engineer with NG Bailey, who headed up the project, said: "We specified the AquaSnap heat pumps at the design stage because we were keen to ensure the best possible energy efficiency, performance and reliability, while minimising impact on the environment. The Carrier units support the building's strong environmental credentials and accrue points under the Building Research Establishment Environmental Assessment Method (BREEAM)."

He added: "The project was highly successful, and we worked closely with Carrier throughout the design and installation stages. The support they provided, in terms of both attendance at planning meetings and technical information, was excellent."



EQUIPMENT

2 X Carrier AquaSnap 30RQP air-source heat pumps, with a combined capacity of 600kW