



Hotel in Central London

Chiller change boosts comfort at central London hotel

Replacing outdoor units for air conditioning systems at central city hotels typically leads to two key challenges: securing road closures and avoiding disruption of hotel operations – or guest comfort.

When two large rooftop chillers at a six-storey hotel in the Blackfriars area had to be replaced, these challenges were very real for installer Chris Henderson, Associate Director of Nationwide Air Conditioning.

Using two Daikin 560kW air-cooled screw chillers to replace the old units, Nationwide completed the project with the most demanding requirements – hoisting units to and from the plant area at the rear of the building – squeezed into two weekends. And, despite high occupancy levels in at hotel, the work was largely unseen and unheard.

Chris Henderson says: “The high efficiency, reduced sound chillers provide the basis for comfort cooling throughout the hotel, chilling the water circuit down to 6°C. The old units,

installed when the hotel opened about 20 years ago, had reached the end of their useful life so a new system was needed quickly – but we had to maintain cooling capability throughout the changeover.

“We designed a solution based on the Daikin units, which offer an attractive combination of price and efficiency. Both chillers water connections were handed in the factory to suit the existing on site pipework to reduce major pipework modification and assist with changeover.

“We pre-fabricated the pipework to connect the new chillers to the chilled water circuit and arranged road closures to accommodate a crane in the street behind the hotel on two occasions.

“On the first weekend we removed the worse of the two old units, leaving the other system as the sole source of cooling. We then brought in the first of the new 4.79-ton Daikin chillers. Over the following week, the new chiller was connected and commissioned.

Year of installation

› 2016

Project requirements

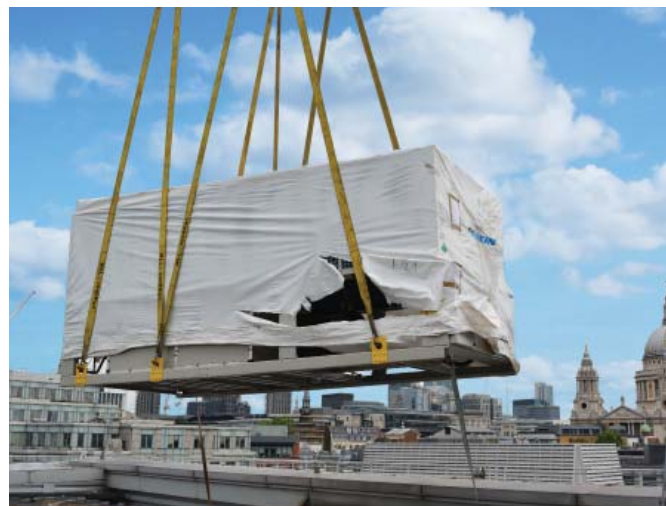
- Air conditioning
- Air curtain
- Air purification
- Control
- Heating
- Hot water
- Refrigeration
- Ventilation

Installed systems

› Chiller



"The second weekend saw the removal of the remaining old unit and installation of the other Daikin chiller.



The Daikin EWAD-D-XR high efficiency, reduced noise chillers offer an average full load EER of 3 and partload ESEER up to 4. The dual circuit units have single screw compressors with stepless capacity control from 12.5% to 100% ensuring high partload efficiencies. They are optimised for R134a refrigerant and are designed for easy interface with various BMS communication protocols.

Kit List

Code	Description	No of units
EWAD-D-XR	Air cooled screw chiller	2

"The new chillers have much higher specification than the old units. There is ample capacity, so normal demand on each chiller is economically low and one chiller can comfortably handle a peak load, even if the other system is out of action – during maintenance, for example."



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