

# Yorkshire Hotel



## Hotel's chilled water fan coil upgrade an all-round winner

Guests at a busy Yorkshire hotel are starting to benefit from latest air conditioning technology following the first phase of a rolling upgrade programme.

The hotel's owners are also benefitting from a refurbishment that has minimal impact on hotel operations and a gradual reduction in operating costs through energy savings as the programme goes forward.

The multi-storey, late 20th century hotel has a chilled water system that has been in place since opening day. After two decades in daily use the original fan coil units in the guest rooms started to become noisy and unreliable.

The concealed fan coil units have separate cooling and heating coils, fed by water circuits from chillers and boilers. Heat exchanger coils are selected automatically for each fan coil unit, according to the difference between actual room temperature and that selected by the guest on the room controller.

Lee Anderton, Client Service Manager at Daikin D1+ Partner Nationwide Air Conditioning, says "The solution was simple. Daikin's FWS-AT was the only modern chilled water fan coil unit that would fit through the existing ceiling hatches. This meant our engineers could complete each replacement – including changing the supply grilles to match the opening of the new Daikin units – without any repair or redecoration issues, enabling rooms to be returned to service quickly.

"With just water and electrical connections – there is no refrigerant gas – an upgrade of chilled water indoor units has very little impact on a hotel's room availability. This is particularly important for hotels that enjoy high occupancies all year. In this instance, we worked on two rooms at a time, on a two-day cycle. Each pair of rooms was ready for guests by the evening of the second day."

He says the floors with the highest incidence of air conditioning problems were selected for the first phase of more than 50 rooms. The remaining old units will stay in service elsewhere in the hotel until further replacements are authorised.

### Year of installation

› 2018

### Project requirements

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

### Installed systems

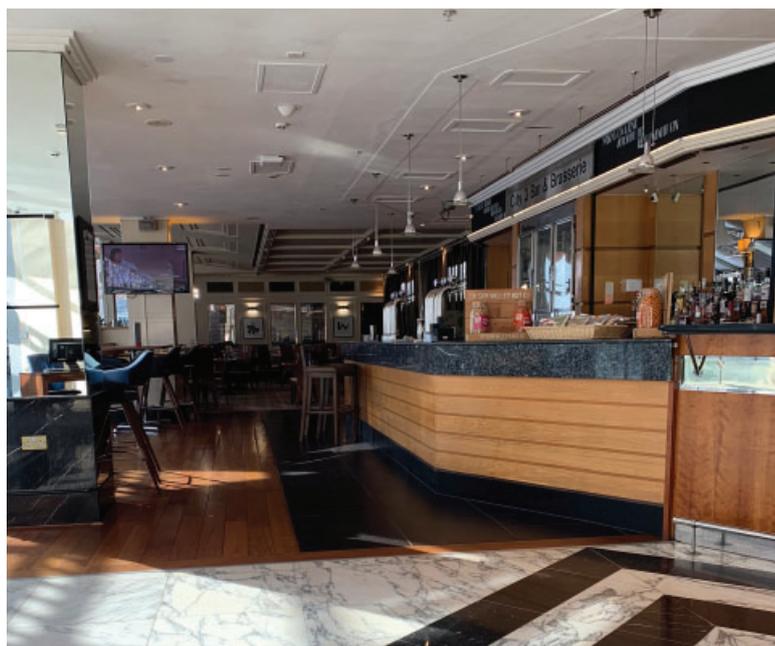
- › Chilled water fan coil units
- › Wired remote controllers

Lee Anderton says

“We compared sound levels before and after the units were changed. Readings were (dB high, medium, low speed): Before 48.0, 44.2, 42.2; After 45.0, 39.0, 35.9. This was a substantial improvement.”

The Daikin FWS-AF concealed flexi-type units now installed in Yorkshire are designed for horizontal or vertical installation, to blend unobtrusively with any interior décor. This makes them ideal for the typical hotel position above the entrance passage ceiling, with discharge into the main room as well as for installation behind architectural detailing.

They have brushless DC motors, which bring energy savings of up to 70% and are quiet in operation. Units are instantly responsive to temperature and relative humidity changes. As a result there is less fluctuation of room temperature, so comfort levels are maintained more reliably.



For the installer, the Daikin FWS-AF offers highly flexible solutions: with multiple sizes, piping configurations, valve and control packages. .

The FWS02AF units for the first phase in Yorkshire measure 584x224x535mm. Sound power at medium speed is 44dBA. The units are controlled by wired remote controllers in each room.

#### Kit list

Code	Description	No of units
FWS-AF	Chilled water fan coil unit	50
	Wired remote controller	50

