

Montcalm Hotel, London, UK



‘M’ picks Daikin VRV for five-star hotel comfort and efficiency

Montcalm Hotels’ portfolio of luxury hotels in central London is hallmarked by the chain’s superior product and personalised service. Demanding the highest of environmental control, M’s HVAC provider of choice is Daikin VRV Heat Recovery air conditioning systems, providing client climate control and ensure comfort throughout its public spaces and 269 guest rooms.

Designed for five-star standards and ‘Very Good’ BREEAM rating, the eye-catching multi million pound 23-storey new-build occupies a triangular site in Shoreditch, North London. In contrast to the Victorian frontage of Moorfields Eye Hospital across the road, the boutique hotel’s futuristic white tower features diagonal windows, bold angles and a pyramid roofline. The building was designed by leading architects Squire and Partners and 5Plus Architects and built by SGP Contracts Ltd.

The hotel has a restaurant and cocktail bar on ground and mezzanine levels and an haute cuisine establishment on the 17th floor – both operated by Searcy’s. Also, the 17th floor is a sky bar with spectacular views. Other facilities include a spa, fitness centre, swimming pool, conference rooms and banqueting suites.

Guest comfort and system reliability are Montcalm Hotels’ key requirements when selecting air conditioning. It currently has Daikin VRV equipment as its primary comfort control systems in three other hotels – with another in the pipeline. Throughout the installation, Daikin supported consultants and contractors to develop and install the best possible solution for the hotel. Daikin also assisted the BREEAM assessors with technical information.

Apart from three concealed floor-standing units, air conditioning delivery throughout Montcalm’s guest rooms and public areas is provided by 433 concealed ceiling units of low or medium static pressure.

Public areas of the building are ventilated by 15 Daikin Heat Reclaim Ventilation units. With a combined capacity of 13,350m³ of fresh air per hour, these units optimise the balance between indoor and outdoor temperatures and humidity levels.

Heat reclaim ventilation helps to reduce the heating or cooling load and increases efficiency of air conditioning systems. Its benefit was readily apparent with the onset of cooler ambient temperatures during M’s first autumn, with a minimal load on the units in the public areas.



Despite the hotel's irregular exterior appearance, floors 5 to 15 are identical in plan. SGP's Building Engineer Stanley Anie says this facilitated installation of air conditioning and other services.

Project Requirements

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

Year of installation
2016

Installed systems

- > VRV Heat Recovery
- > Ducted Fan Coil Units
- > Concealed Floor Standing Unit
- > Ventilation Heat Reclaim

Ventilation is also a key concern in modern buildings because of regulations focusing on energy efficiency and environmental concerns. Double glazing, better insulation and airtightness help to reduce heating or cooling demand – and environmental burdens – but buildings effectively

become sealed boxes with no natural air movement. Guest rooms are ventilated by a central air handling unit feeding the air intake of the concealed ceiling units. The return flow is via bathroom vents.

Montcalm's air conditioning control is integrated into a third-party common touch-pad controller for all 'in room' guest services. No equipment problems or guest complaints were reported in the first six months of operation.

"We basically had to get one floor right, then just repeat the installation all the way up."

