The Unico System



Small Duct Heating, Cooling and Ventilation

Case Study - easyHotel, Old Street, London

Background

Unico small duct heating and cooling systems have helped easyHotel to enhance the comfort conditioning for guests at its hotel in Old Street, City of London.

"All of the bedrooms at the Old Street hotel were fully air conditioned but the existing ducted air systems were not able to accurately control temperature and we started getting complaints from our guests" explained John Hearn, Head of Property Development for easyHotel at the time of the project.

The engineers at Unico were approached to provide a solution and following an evaluation all of the air handling units, condensing units and controls were replaced. The existing ductwork was modified where required to avoid disruption to the building fabric and return air pathways were upgraded with new transfer grilles and fire dampers.

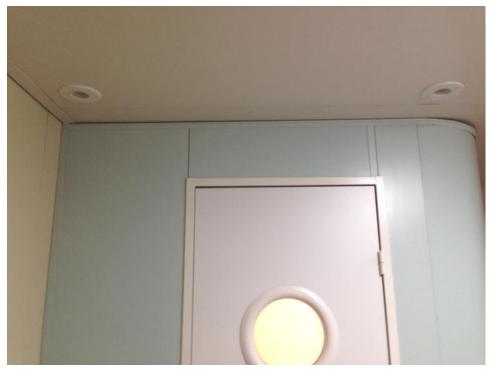
"We are extremely happy with the performance of the new Unico Systems and it has solved so many of the issues on site."

- John Hearn, Head of Property

Development







Discreet supply outlets compliment the interior space.

Solution

In total, contractor KBS Services installed eight Unico systems across three floors and serving a total of 95 rooms. Each floor is served by multiple Unico air handling units and connected to a Mitsubishi reverse cycle heat pump VRF system to provide heating and cooling. The air handling units are located centrally on each of the floors to allow for easy access during regular service and maintenance without the need to disturb any of the guests.

The control strategy was completely reconfigured with new thermostats using multiple temperature sensors to provide average temperature readings for each zone served per system. Zone temperatures are controlled by the hotel management, typically to maintain a constant temperature of 22°C in each room.

A key benefit of the Unico system is that the only visible elements within the rooms are small outlets. Air is introduced at high velocity to quickly entrain the room air and achieve even temperature distribution, whilst maintaining low noise levels of around 29dB(A).

Benefits

- Even temperatures across the rooms
- NR20 Sound Level Rating.
 Very quiet
- Zone control options
- Discreet supply outlets
- Flexible design and installation
- EC Variable Speed Control

Summary

Installation Date:

July 2014

Contractor:

KBS Services

Unico System:

8 x 14kW Systems EC Blower modules and DX Coils

Energy Source:

3 x Mitsubishi Electric VRF Systems

Controls:

8 x Jackson Systems T-32-P with remote averaging sensors

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