

MHI's cool solution for high rise call centre

MITSUBISHI Heavy Industries recently saw one of its biggest air conditioning projects reach completion at the ten-floor North House, home to a Royal Bank of Scotland call centre, in Romford, Essex.

The three-pipe VRF system in the total refurbishment project comprised 198 cassette fan coil units and nine 68kW condensing units on the roof.

MHI's e-solution design software was used to ensure ease of installation and swift start-up times. The job took eight months to complete and involved a combination of MHI KX4 and KX6 Ecolution equipment running on R410A and providing heating and cooling.

The system was installed by Direct Cooling Services UK of Rayleigh, whose contracts manager, Martin Ball, commented: "We were replacing a York chilled water system which had become dilapidated – it had been there for about 40 years. There were leaks all over the place and a modern replacement system was needed urgently. The customer wanted an energy efficient alternative which would also reduce the running costs for the end users."

Individual control

A VRF system was selected as the best solution, catering for the different demands of each floor of the building. The client, Emerson Willis, wanted each level to have its own control system. It also required a control system for the roof to monitor the energy consumed and other factors such as on and off times for temperature mode.

The main problem when it came to installation was the car park on the first floor. The floor plates were also long, running from one end of the building to the other and reducing space to fit the

equipment. MHI's cassettes are compact but the installer still had to smash through the plasterboard ceiling to the concrete to fit the units as tightly as possible.

The noise caused by the work was an issue. Martin Ball said: "We had to start drilling early to avoid inconvenience. We couldn't drill at the feet of people working in a call centre. We moved from floor to floor, starting with the unoccupied floors first. The office workers moved out and then we moved in to get on with the job. We had a rolling fortnight to do each floor."

There was also a problem with the roof as no structural survey had been carried out, but an eight-ton chiller was already installed there. The chiller was subsequently removed and the MHI condensers installed.

E-solution design software

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He added: "The machinery and pipe runs were laid out in a very simple computer-generated format. It makes it easy for the contractor to install the equipment. The size of the project is immaterial. The pipe runs are displayed and we can give them the exact refrigerant charge."



Getting the system running also proved to be straightforward. Mr Ball said: "With the aid of a USB stick I downloaded the information and it is simple. The 3-i controllers on each floor worked a dream. You can operate every single fan coil on and off. You can even unlock the tenants from having operational control."

He continued: "The time clock and monitoring operation is carried out by MHT's SLA3 touch screen controllers in the plant room, so there was no searching through a manual or being on the phone for hours looking for help."

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