



Renovated hotel upgrades air conditioning system to Mitsubishi Electric 2-pipe heat recovery water cooled CITY MULTI VRF utilising existing chilled water system.



### Project Info

#### Application

Next Hotel Brisbane

#### Location

Brisbane, QLD

#### The Challenge

One of Brisbane's oldest hotels, the Lennon's Hotel located in Brisbane Queen St Mall underwent a major make-over in 2014 and was relaunched as the new 30 storey Next Hotel Brisbane. The previous set-up of the building consisted of hotel rooms on the lower level with the remaining upper levels used as office space.

With the new Next Hotel using all 30 levels for hotel rooms the existing chilled water system would have to be completely revamped to suit a hotel application. Modifying the existing chilled water system would put the project over budget so an alternative solution was required.

An additional requirement from the client was to allow hotel guests to control everything in their rooms via smart phone.

#### The Solution

The solution to this was Mitsubishi Electric's Water Cooled CITYMULTI VRF technology which utilises water as the heat rejection source as

### The Team

#### HVAC Contractor

Navaska

#### HVAC Consultant

Norman Disney & Young

opposed to conventional air cooled systems.

Utilising the existing water circuit from the previous chiller system and with the additional feature of the Water Cooled VRF condensing units having no heat rejection (no need for additional cooling in plant space), the condensing units were installed in small plant rooms which took up minimal floor space thus providing more usable floor space for the hotel.

In addition to the Water Cooled condensing units, Mitsubishi Electric's 2-pipe heat recovery systems were used which provide simultaneous heating and cooling when required providing year round comfort to the hotel guests.

To allow the Mitsubishi Electric VRF systems to work with the smart devices in the hotel rooms a BACnet BMS adapter was provided which was then programmed by Mitsubishi Electric control engineers with the BMS Company. Mitsubishi Electric AG-150 central controllers were installed in the MSB which allowed for central monitoring for faults.

### UNIT INFORMATION



#### Outdoor Units

PQRY-P600YSHM-A x 1  
PQRY-P550YSHM-A x 4  
PQRY-P500YSHM-A x 4  
PQRY-P450YSHM-A x 10



PQRY-P400YSHM-A x 3  
PQRY-P300YHM-A x 20  
PQRY-P250YHM-A x 22  
PQRY-P200YHM-A x 16  
MUZ-GE25VA-A1 x 1

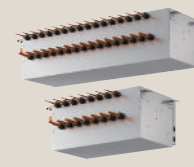


#### Indoor Units

PEFY-P25VMA-E x 304  
PKFY-P63VKM-E x 2  
PKFY-P20VBM-E x 2  
PEFY-P80VMH-E x 3  
PEFY-P71VMH-E x 2



PEFY-P250VMHS-E x 1  
PEFY-P200VMHS-E x 12  
PEFY-P140VMH-E x 4  
PEFY-P125VMH-E x 1  
PEFY-P100VMH-E x 2  
MSZ-GE25VA-A1 x 1



#### BNC

CMB-P108V-GA1 x 6  
CMB-P104V-G1 x 2  
CMB-P1016V-GA1 x 10  
CMB-P1013V-G1 x 12



#### Controllers

AG-150A-J x 3  
PAR-30MAA-J x 30  
PAC-YT52CRA-J x 304  
PAC-YG50ECA-J x 9  
PAC-SE55RA x 304