Better air for the built environment

# Leisure hotel

Case study

## Working in partnership with an engineering company to increase the life expectancy of a hotel's ventilation system, with space limitations.

Leading ventilation manufacturer VES were approached by an industry leading refrigeration, electrical and mechanical engineering company, to recommend a ventilation solution to a hotel's end of life air handling unit.

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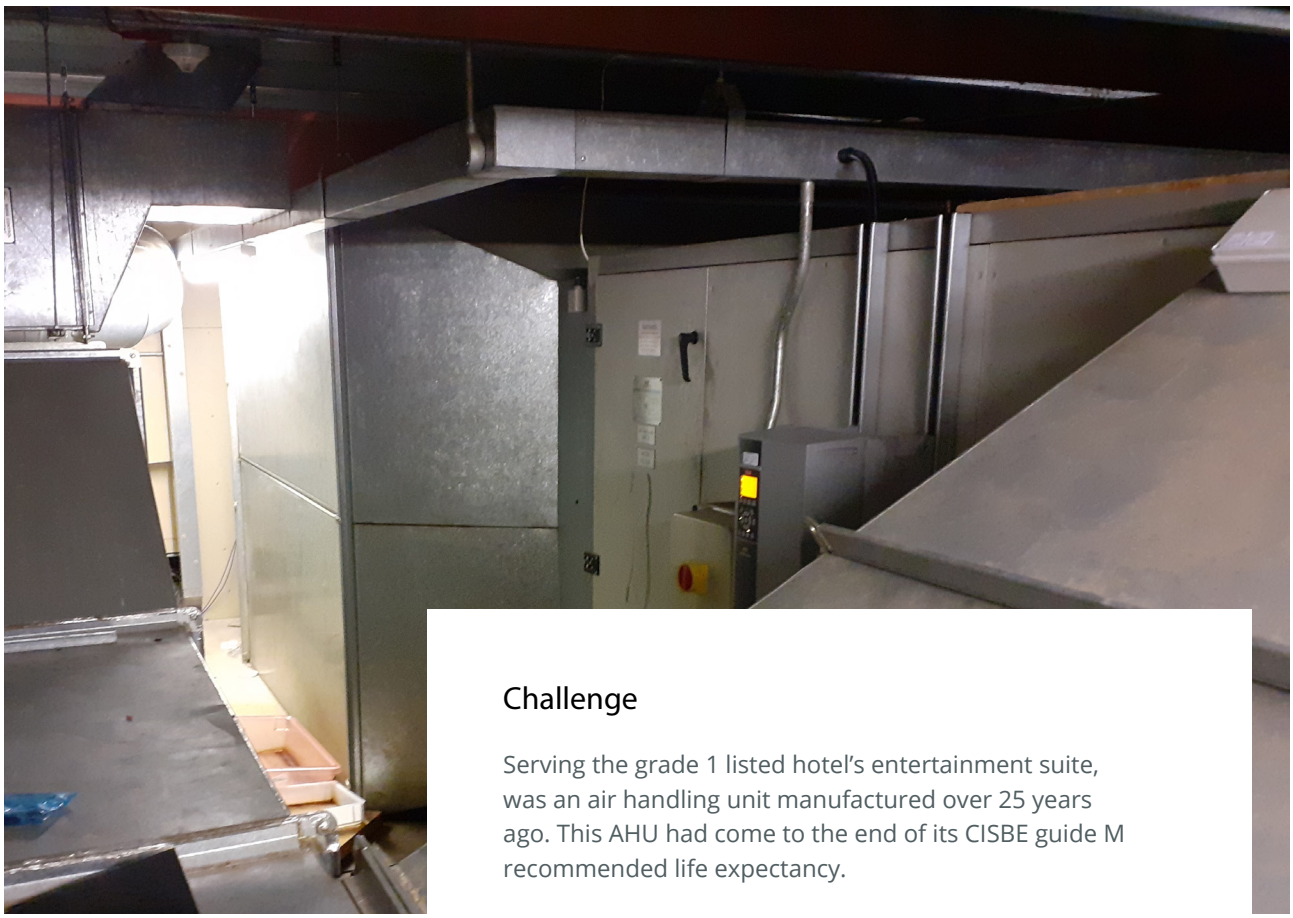
| **Client** | Hotel case study |
| **Sector** | Leisure |
| **Challenge** | Hotel AHU and the end of its CIBSE life expectancy |
| **Success** | To upgrade the outdated fans and motors to maximise service life and reduce maintenance |



## Challenge

Serving the grade 1 listed hotel's entertainment suite, was an air handling unit manufactured over 25 years ago. This AHU had come to the end of its CISBE guide M recommended life expectancy.

VES' Site Services team surveyed the existing HVAC solution and due to the location restriction of the existing air handling unit, VES needed to recommend a solution that would fit within the existing infrastructure and increase the AHU's operational life expectancy.

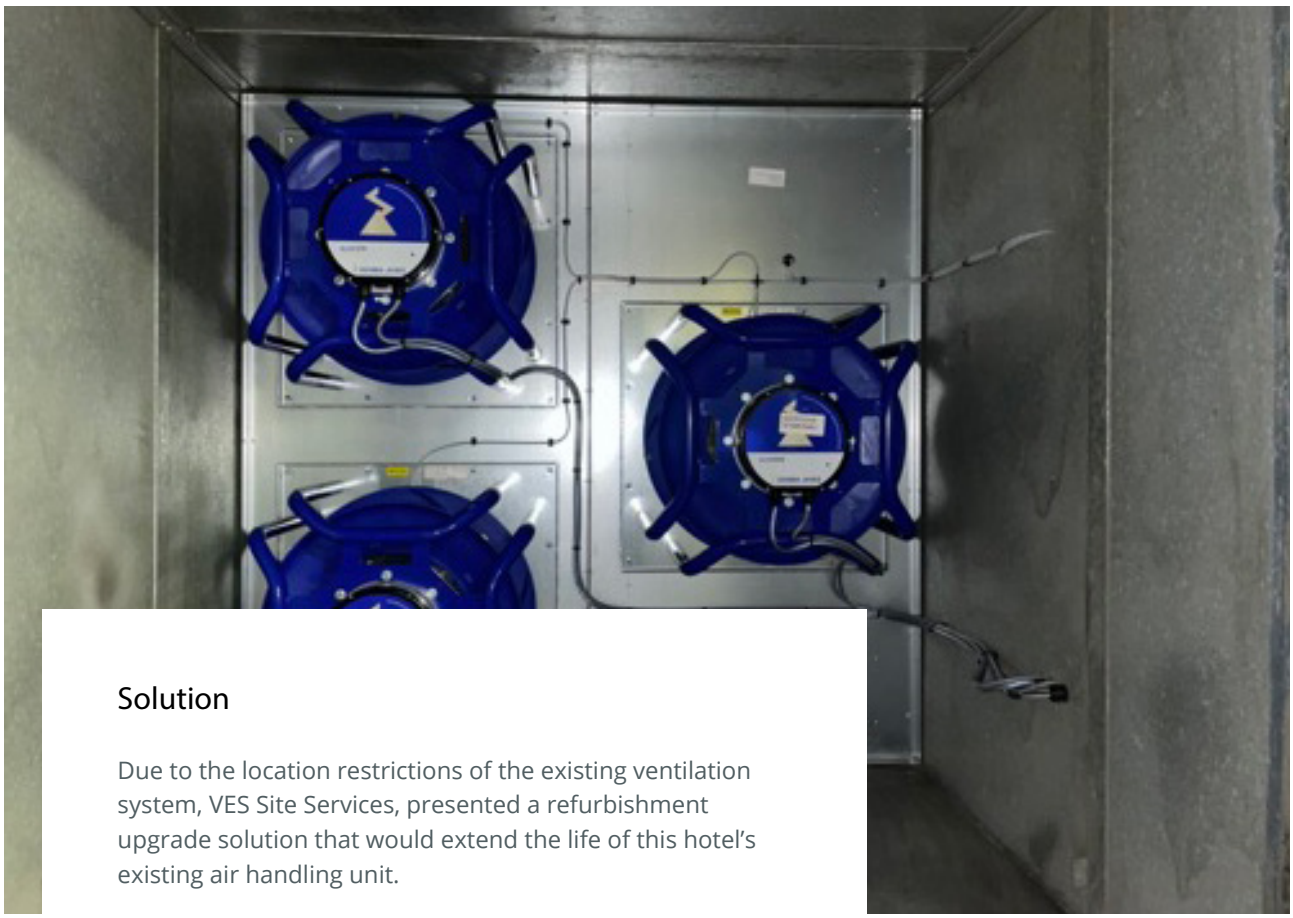
The AHU was situated in the roof space above the entertainment suite with access via a hatch with a pull-down ladder and minimising noise also needed to be considered, due to the location of the AHU.

VES thrive on creating value and making a difference to occupants and buildings by improving air quality, building operation and the environmental impact.

*Entertianment suite*

*Hatch to the roof space*

*Access restriction of AHU*



## Solution

Due to the location restrictions of the existing ventilation system, VES Site Services, presented a refurbishment upgrade solution that would extend the life of this hotel's existing air handling unit.

Working closely with this industry leading engineering company and the hotel, VES upgrading the out-dated belt driven fans and motors to energy efficient EC plug fans, to maximise service life and reduce maintenance. This upgrade also involved making modifications to the AHU's casework, to support the installation of new bulkheads to fit the new EC plug fans and the new duct transition improvements, to allow better airflow.

The existing R22 condensing unit serving the DX coil was also replaced and a new reverse cycle DX coil was installed. The AHU's old panel and bag filters were also removed and replaced with new filters.

*New panel filters installed*

*New DX coil installed*

*New energy efficient EC plug fans*

## Results

Through the utilisation of VES' broad experience, industry and sector knowledge and robust supply chain, VES' team of experts successfully delivered a refurbished ventilation solution, designed to meet the client's specification and cost model.

The client was delighted with the finished project and the successful refurbishment of an outdated AHU. This has improved operational efficiency, reduced energy consumption, and reduced ongoing maintenance costs. The project was delivered on time and in line with VES' detailed scope of works.