

Hotel Balneario, Las Arenas, Valencia



Historic hotel opts for sustainable upgrade, with L ∞ P by Daikin VRV heat pumps delivering enhanced comfort and efficiency using regenerated refrigerant

Located on the Playa de Las Arenas in Valencia, the architecturally distinctive five-star Balneario Las Arenas hotel dates back to 1898. Its philosophy is focused on offering guests and visitors luxury and comfort.

Care for the environment is also central to the hotel's ethos. When it came to upgrading existing VRV systems to reduce maintenance costs and further improve comfort control, choosing a replacement solution with lower CO₂ footprint was top of the agenda.

Having already worked with Daikin, the hotel opted to replace the existing heat pumps with L ∞ P by Daikin VRV heat pumps, given the main objectives of the renovation were sustainability and a reduction in running costs.

The hotel owner opted for VRV heat pumps with heat recovery, where heat recovered from rooms needing cooling is reused to heat colder areas elsewhere, enabling huge savings.

Completed to budget and on time

Initially planned as a two-year programme, to minimise disruption to guests, the project was completed in a record six months, taking advantage of the closure of the hotel due to the Covid-19 pandemic.

"The speed of execution, thanks to Daikin's support ensured the entire operation was carried out as per the schedule set."

Comments Jesus Perez, air conditioning installer for the modernisation programme.

A total of 88 outdoor units were replaced, while retaining 458 of the existing indoor units, with the associated advantages of delivering cost savings and a significantly reduced project time.

The undertaking included converting the existing two-pipe system to a three-pipe configuration and extending the system by adding indoor units to better serve the lobby areas.



"We have achieved our goal of efficient climate control with a premium brand that offers the comfort and indoor air quality that our customers deserve, in addition to sustainability and respect for the environment - a primary value for our hotels."

Carlos Boga, Director, Hotel Balneario Las Arenas

Project Requirements

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

Year of installation
2022

Installed Systems

- > 88 outdoor units changed, including 22 new VRV heat recovery systems
- > 60 distribution boxes—changed from 2-pipe to 3-pipe system
- > 24 indoor units serving lobbies

Responsive comfort

The heat recovery system offers maximum comfort for guests and users of the hotel's event spaces and conference areas.

Separate temperature zones enable every room to be controlled individually, adjusting the comfort conditions to suit the individual or activity. As part of the renovation, Daikin's intelligent Touch Manager mini BMS was installed with cloud connection. This allows the hotel management to remotely ensure comfort levels, while giving full control to optimise energy use.

L∞P by Daikin

This project is an example of the L∞P by Daikin philosophy, reusing available resources in a responsible and qualitative way.

The circular economy has been implemented at two levels in this project. First of all, the copper piping and indoor units were kept from the initial system, with significant savings in resources and project time. Secondly, the new LOOP by Daikin VRV heat pumps reuse refrigerant available from decommissioned

485 existing indoor units where retained, delivering cost savings and a significantly reduced project time.

systems. The refrigerant is reclaimed meaning it is regenerated in a qualitative way to have the same quality as virgin refrigerant, with the difference that it doesn't consume the Earth's resources.

The large-scale renovation carried out at Hotel Balneario Las Arenas illustrates how today's technology can enable buildings to reduce their carbon footprint and cut energy bills quickly and cost-effectively by just changing the outdoor units. The hotel continues to operate in a much more sustainable and efficient way, protecting the environment while saving on costs and further improving comfort.



The new VRV units provide independent climate control for guest bedrooms and conference areas, maximising guest comfort.



Cloud connection gives the hotel management full control to optimise energy use.



Installed on the roof, the L∞P by Daikin VRV heat pumps with heat recovery reduce the hotel's carbon footprint and maintenance costs.