



Royal Marsden Hospital NHS Trust



Hospital saves a cool £53k a year after air conditioning upgrade

Royal Marsden Hospital NHS Foundation Trust – a leading player in the fight against cancer – has cut its summer cooling costs by almost £53,000 a year after upgrading 122 air conditioning systems.

In a move sparked both by the ban on R22 refrigerant and the desire to improve efficiency and cost savings, it turned to Daikin UK for a solution across its two sites – Sutton and Chelsea. The new systems serve a wide range of rooms including laboratories and treatment rooms in both locations.

According to the trust's energy manager, Ehsan Sattar, the monetary saving translates to annual reductions of 440,367kWh in electricity or 240 tonnes of carbon dioxide.

Rated as the most commercially savvy NHS hospital, the trust also recognised that the compulsory change to systems using a more environment friendly refrigerant also presented opportunities for savings on running costs and capital budgets – potentially boosting funds for medical and treatment services.

With R22 now banned for use in new systems or for recharging systems, if major components fail in any

of the old systems, they can no longer be repaired. The trust avoided this by signing a timely purchase agreement with Daikin. The trust chose the brand for its wide product range with high energy efficiency and excellent quality.

The Daikin package included competitive pricing coupled with extended warranties, a dedicated account manager, updates on technology as well as legislation and products, and efficient after sales service.

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Year of installation

› 2015

Project requirements

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

Installed systems

- › VRV
- › Sky Air
- › Chillers



Founded in 1851 by Dr William Marsden, Royal Marsden is the world's first hospital dedicated to cancer diagnosis, treatment, research and education. Its Fulham Road building opened in 1862, and the Sutton hospital was opened in 1963. With its academic partner The Institute of Cancer Research it forms the largest comprehensive cancer centre in Europe

A reduction in air conditioning faults also ensures greater availability of the hospital's other systems – which is essential for business continuity.

The new Daikin R410A systems – including VRV, Sky Air and chillers – were installed in 2014-15 by Daikin D1+ partner EMS maintenance. A variety of Daikin fan coil units are installed indoors.

R410A technology is expected to remain the mainstay of the air conditioning industry for many years to come, however it will be subject to phase down with the move to lower Global Warming Potential refrigerants.

Daikin is already pioneering alternatives and now offers a growing range of systems using R32. Ironically, this is 50% component of R410A, but on its own has GWP of 675 against R410A's 2088.

