



Client Southend Hospital A&E Department

Spend: £13,882

Background

Southend University Hospital provides healthcare for around 330,000 people through a comprehensive range of acute services across the region. Their Accident and Emergency Department provides a rapid diagnosis and treatment service for patients who are seriously injured or suddenly ill. In 2012-2013 the Department treated almost 30,000 people and is a vital resource for the local community.

The Project

In 2013, The Department of Health announced that it is providing hospitals and GP centres in England and Wales with funding of £50m to reduce energy costs and carbon emissions. Southend Hospital highlighted 17 projects in total and one of these was the replacement of very inadequate door heaters in their A&E Department. To compensate for the heat loss through the doors, the set point of the internal room had to be increased, increasing energy use and costs.

Before the project could start, they had to justify the funding and show how the upgraded doors would save money and when they would see payback.

The Department had two door heaters installed; one on the main public entrance and one on the ambulance entrance. The main A&E entrance has higher footfall passing through however the ambulance entrance, whilst used less frequently, is often open for up to half an hour at a time when an ambulance arrives. The original units covering the 12 foot wide doors were only 2 feet in length, making them highly ineffective.

Scope of Job

The project for replacement door heaters was put out to tender and 3 contractors were shortlisted. Adcock Air Conditioning and Refrigeration was awarded the contract based on price and the efficiency of the solution.

With no hot water pipework distribution near the entrances it was not practical or cost effective to install a wet system. We therefore opted for Biddle standard air curtains connected to Daikin ERQ heat pump inverter condensing units. This technology would offer greater payback and would help to reduce their carbon footprint. As ASHP's do not have long term running costs they are also much cheaper to run.

The Biddle units come in three formats; free hanging, cassette and recessed. For Southend Hospital the free hanging systems were used. Additional wall sensors were also installed within the lobbies to increase control accuracy. Individual remote controllers were positioned behind reception to allow each entrance temperature to be adjusted along with BMS interfaces to connect into the main hospital central control system.

Adcock have been involved in servicing and maintaining Southend Hospital for around 11 years so we were able to offer the best technical advice and manage the project from start to finish.

Installation

In total the installation took around 4-5 hours. The installation took place during the quietest part of the day starting at around 5am. The public were diverted to enter through the Ambulance entrance whilst the work was carried out and vice versa for the second door curtain installation. Firstly the electrical contractors installed the electrics and then the bulk of the work was carried out by our engineers. The entrance has a flat roof and gantry so any pipework or wiring was neatly hidden inside the suspended ceiling, meaning no more unsightly cables.

Testimonial

We have had a relationship with Adcock for many years and they provide all of our service and maintenance in our air conditioning plant. There are two main engineers that are very familiar with the site and for this installation they were able to identify the best system based the size of the entrance roof and site knowledge. We had to obtain 3 quotes for this project and Adcock won the work on their competitive quote and knowledge. The installation was seamless - they knew all of the people involved, who to contact and where to isolate the power. We would certainly recommend both Adcock and the technology used.

Mr Manoj Chohan
Energy Manager, Southend Hospital A&E Department.