

# Case Study



## > **Tele-Housing**

IT Environments Limited specialise in designing and installing air conditioning systems for the IT and telecommunications industry. As a result of the current boom in telecommunications, IT Environments has experienced a rapid increase in the demand for close control air conditioning.

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# Case Study

## Tele-Housing

In response to this expanding market, a UK based telecoms company approached IT Environments to supply and install close control air conditioning for tele-housing in Harbour Exchange, London, which will provide Internet Service Providers (ISP's) and telecoms companies with the necessary space for their expansion.

### Design Criteria

The customer, a UK based company, had taken four floors within Harbour Exchange, covering 77,500 sq.ft. all of which needed cooling at a temperature of 21°C. "The rooms require close control air conditioning to ensure a stable platform for the 'comms' systems, housed in racks, and supporting equipment that will be installed by various companies," comments Simon Anderson, Project Manager at IT Environments. "Within IT and telecoms operations the accuracy of both temperature and humidity are vital for this equipment to work efficiently, especially with the large heat loads now present."

### Unit Specification

IT Environments specified 72 Airedale glycol Free Cooling Sirocco units, with the non-ozone depleting refrigerant R407C. Airedale has been manufacturing and designing close control air conditioning systems for over 30 years and has a complete range of products which satisfy today's expanding telecoms industry.

"Because of the extensive area which needed cooling, our client required a reliable, effective air conditioning system" adds Anderson. "Airedale have been supplying ITE with air conditioning equipment for many years and we have built a confident working relationship together on numerous projects."

### Installation

The seventy two Sirocco units are situated at various points around the area and provide 'downflow' air conditioning air, distributed through the false floor plenum. The air is directed through grilles situated within the floor and under 'comms' equipment. The air is then returned to the room units. The air conditioning units are fitted with Cylon controllers, with in-built strategies for ease of operation and energy efficiency.

### Energy Efficiency

"We chose glycol free cooling units for their improved energy recovery from the environment, resulting in improved energy efficiency and running cost reduction" explains Anderson. The glycol Free Cooling coil is used in conjunction with a three way modulating valve to provide free cooling when the outdoor air temperature is below that required for the conditioned space. During Free Cooling the compressor switches off reducing energy consumption and cost. "The Free Cooling option provides exceptional short and long term savings," concludes Anderson. "Using less electricity to power the compressor means a shorter payback period with a longer life expectancy with less maintenance."

### The Airedale Close Control Range

The Airedale Close Control Range provides high precision air conditioning from 4kW to 136kW for environments such as computer processing centres, 'telecoms' switching stations, medical operating theatres and clean rooms.

Call Airedale now on +44 (0) 113 239 1000



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