Andrews Prevents Data Centre Closure due to Burst Water Pipe

When a burst pipe threatened loss of critical temperature control in the data centre of a major telecommunications company, Andrews Chiller Hire were called upon to deliver a solution that would achieve and maintain constant air temperature whilst the in-house air conditioning system was shut down for repair and test.

Since the water leak was discovered on a Saturday maintenance staff needed to contact a chiller hire company that could support them immediately, providing a solution to protect the expensive equipment at the data centre. Should the air conditioning system have to be shut down, without any alternative supply of chilled air it would be extremely costly, with the company facing millions of pounds per hour in lost revenue, and potential contractual supplier fines.

Andrews Chiller Hire was the first point of contact since it offers 'local' availability of chillers and associated equipment, and there is no such thing as closed-at-weekends, the company provides round-the-clock service, 365 days a year. It is this level of support backed by experience staff that has enabled Andrews to deliver, promptly, so many temporary fully engineered solutions.

Data centres with their banks of computer suites demand a consistent temperature controlled environment. Heat dissipated from computers, servers and other associated electronic equipment is a major contributor to rising room temperatures hence the requirement for a reliable air-conditioning system. With any temperature rise there can be a subsequent increase in room humidity creating potential from electrostatic discharge which is detrimental to safe and secure computer performance. The outcome is potential total loss of or corruption to data.

The emergency phone call to Andrews Chiller Hire was made on a Saturday afternoon and within just one hour a solution had been formalised with the customer and the required equipment and engineering team mobilised.

To meet the high-level air-conditioning demands of this telecommunications data centre which is split over two floors Andrews Chiller Hire supplied a range of duplicated equipment so that it could be installed on opposite sides of the building to achieve essential critical temperature control. On each side of the building engineers installed a 750kW chiller that delivered chilled water to 5 air handlers, (3 supplying the top floor and two the lower floor). Since this had to be a totally independent solution Andrews also installed one 550 kVA generator on each side of the building, connected to a 3,000 litre fuel tank.

In many installations air handlers act as recirculating systems, drawing air from a room, routing to the chiller and returning the air at a much lower temperature. For this data centre there were site restrictions in doorways for ducting therefore air handlers chosen were tasked with delivering chilled ambient air by use of cooling fluid from a 750kW chiller.

This provided sufficient cooling allowing the data centre maintenance team to shut down their system and bleed it without actually closing down the routine functionality of the datacentre. Only once all pipework had been tested using ultra sound technology and any leaks repaired was the in-house air-con plant returned to full duty.

Andrews Chiller Hire, a specialist division within the Andrews Sykes Group, holds an impressive range of modern air-cooled fluid chillers with capacities from 6kW to more than 750kW and single air-handlers capable of delivering up to 600kW. It operates from more than 25 depots across the UK, providing 365 days, 24/7 dedicated support. This level of customer commitment has enabled Andrews Chiller Hire to respond and deliver many time critical temporary solutions, prevent business losses due to faulty in-house air conditioning plant.

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