

STAR ENSURES BANK STAFF KEEP THEIR COOL IN THE CITY

Location:	London City
Equipment:	4 x 600kW chillers
Refrigerant:	R134a
Capacity	2.4MW

Star Refrigeration has supplied a bespoke plant for HVAC cooling at the London offices of a global investment bank.

The existing refrigeration plant at the firm's client administration centre in the City's Square Mile was due for replacement. The plant operated on R22, an ozone-depleting HCFC refrigerant currently being phased out by EU regulations.

Working alongside a leading building services consultancy, Star designed a new low maintenance cooling plant to improve efficiency, reduce noise and ensure the highest reliability for the building's heating, air conditioning and ventilation system.

The challenging aspect to the project was retaining five air handling units (AHUs) which form part of the fabric of the building. The cooling coils in these AHUs were supplied with direct R22 refrigerant.

A detailed study was carried out into the possible use of chilled water cooling coils to remove the use

of direct refrigerant. The investigation concluded that the AHUs would have to be replaced to accommodate chilled water, so a similar solution using a non ozone-depleting refrigerant was necessary.

A world leader in cooling and heating system innovation, Star determined that a specialist flooded evaporator design was required that enabled the existing AHUs to be retained and ensured no loss of cooling capacity. Star developed a flooded evaporator coil design that could be retrofitted to the existing AHUs. This was achieved using Star's patented Low Pressure Receiver (LPR) system design.



Located on the roof of the building, part of Star's bespoke high efficiency air-cooled refrigeration plant.

Star designed, built, installed and commissioned a bespoke air-cooled LPR refrigeration plant comprising four 600kW chillers operating on synthetic refrigerant R134a. The system features revolutionary Turbocor oil-free compressors to provide high efficiency, reliability and low noise operation.

Star's specialist contracting team installed new R134a AHU evaporator coils in a phased installation programme to ensure adequate cooling was maintained within the building. The new cooling plant is located on the roof of the building and was designed to fit within the footprint of the previous refrigeration system.

The project was completed within six months from order to commissioning. It was vital that there was no adverse affect on the investment bank's business activity or interruption to HVAC supply during this period and this was achieved.

When it comes to designing energy efficient cooling and heating systems, Star is a natural innovator. Star works with strategic partners across the globe to deliver low carbon, cost saving solutions.

For more information visit www.star-ref.co.uk, email star@star-ref.co.uk or phone +44 (0)141 638 7916

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