Case Study



CASE STUDY: BSkyB

FIVE STAR COOLING FOR NEW SKY STUDIOS

Location:	Isleworth
Equipment:	5 x Air Cooled Indigochillers
Refrigerant:	R134a
Capacity	5 x 1MW

BSkyB's brand new sustainable landmark broadcast facility features a revolutionary air conditioning system from cooling and heating specialist Star Refrigeration.

BSkyB is a leading broadcaster of sports, movies, entertainment and news. The company operates the UK's largest digital pay TV platform from its headquarters in Isleworth, London.

Star has supplied five of its state-of-the-art Indigochiller refrigeration plants to provide cooling within Sky's new Sky Studios building. The ground-breaking facility will provide TV studios, technical and post production space for Sky.

Five air-cooled Indigochiller units, each with a 1MW cooling capacity have been installed on the roof of the new building. Each Indigochiller provides chilled water, which is then pumped through insulated pipework to air handling units (AHUs). These AHUs will provide comfort cooling throughout the Sky Studios building, as well as some computer server cooling.

PROJECT: Indigochiller

Star Refrigeration Sales Manager Michael Reeve says: "A ground-breaking building such as Sky Studios required a state-of-the-art chilling system. Our Indigochillers have a strong track record at BSkyB, with the first installed at Isleworth over six years ago. They have proven efficiency benefits, are low maintenance by design and highly durable."



One of Star's Indigochillers being lowered onto the roof of the new Sky Studios building

Star has worked in partnership with BSkyB on multiple building cooling projects since 2005 and has installed 36 Indigochiller units to date. Indigochillers are providing a total 18.85MW of cooling across fifteen BSkyB buildings, from Southampton to Livingston.

Star's energy efficient Indigochillers are just part of BSkyB's efforts to ensure Sky Studios helps to reduce carbon footprint, minimise environmental impact and assist renewable energy generation at the Isleworth site. Designed for large-scale air conditioning and process cooling, Star's Indigochiller is manufactured to ensure maximum efficiency, longterm reliability and low life-cycle costs. Each Indigochiller now comes with a three-year 'no quibble' guarantee covering component reliability, efficient performance and leak-tight operation.

Engineered to have minimal effect on the global environment, Star's Indigochiller has a robust design that aims to eliminate refrigerant leakage and offer over 20 years service.

The low charge, high performance Indigochiller features a revolutionary Turbocor compressor, which is low maintenance by design to ensure lifelong trouble-free running. The oil-free compressor operates on electromagnetic bearings and uses the synthetic refrigerant R134a. The system offers reliable performance and requires minimal installation, servicing and maintenance.

Indigochiller is manufactured from the highest quality components selected to minimise the risk of refrigerant leakage, reduce maintenance costs and enhance operating life. Standard features include 'leak-free' bellows seal valves, sealed expansion valves and welded steel pipework. The air-cooled Indigochiller has epoxy coated condenser fins standard to reduce the risk of corrosion damage.

Available as an air-cooled or water-cooled unit, Indigochiller has capacity options ranging from 250kW to 1,650kW. A robust PLC control system allows the user to monitor refrigerant charge, running conditions and optimise efficiency. Indigochiller is highly energy efficient using only 60% of the energy required by a standard chiller operating on typical load and ambient profiles. This offers end users a significant saving in energy and running costs.

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 <u>www.star-ref.co.uk</u> phone Star Refrigeration on 0141 638 7916 or email <u>star@star-ref.co.uk</u>.

