

CASE STUDY

CASE STUDY NUMBER 48: GSK, BRENTFORD

MARCH 2009

ANOTHER CHILLING STAR PERFORMANCE FOR GSK

Customer:	GlaxoSmithKline
Location:	Brentford, Middlesex, UK
Equipment:	IW1000 Indigochiller
Refrigerant:	R134a
Benefits:	Energy Savings Reduced carbon emissions Lower life cycle costs

Star Refrigeration has installed a high efficiency Indigochiller cooling system for specialist air conditioning at GlaxoSmithKline's global head office.

GlaxoSmithKline (GSK) is one of the world's leading research-based pharmaceutical and healthcare companies. GSK House in Brentford, Middlesex, is the company's prestigious global headquarters.



GSK Headquarters at Brentford, Middlesex

Star has designed and installed an environmentally conscious, low carbon footprint chiller solution for GSK House. Star's compact, packaged Indigochiller is serving a new IT data centre at the Brentford site.

The data centre operates around the clock with a continuously high base heat load generated by a mass of computer servers. Star's Indigochiller was chosen following a competitive tender process, which highlighted a significant saving in energy, carbon emissions and lifecycle running costs.

GSK's water-cooled Indigochiller has a total capacity of 1,000kW. The system employs water from the local canal to cool the condenser and maximize efficiency. Located externally, the compact packaged chiller delivers cooling to the data centre building via chilled water pipework.

Star's Sales Director Rob Lamb says; "As a reliable, high efficiency system, Indigochiller met GSK's carbon reduction requirements and exceeded expectations with its low life cycle running costs."

He adds: "Indigochiller offers the ultimate cooling solution to forward-thinking operators. It is designed for unrivalled performance in process cooling and air conditioning."

Star worked in conjunction with the facilities management company for GSK House. The

contract was one of a number of cooling projects undertaken by Star for GSK in 2008, including sites at Ware, Barnard Castle and Dungarven.



Star's water cooled Indigochiller installed at GSK House

Star's Indigochiller is a low charge, high performance chiller for medium to large scale air conditioning and process cooling operations. Available as an air-cooled or water-cooled unit, Indigochiller has capacity options ranging from 240kW to 1,500kW.

Indigochiller is highly energy efficient. Star's research shows it uses 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.

Indigochiller is engineered to have minimal effect on the global environment. Developed in direct response to f-gas regulations, the design aims to eliminate refrigerant leakage. It features bellows seal valves, sealed expansion valves and welded steel pipework.

Indigochiller features the revolutionary Turbocor centrifugal compressor. It operates on low noise electromagnetic bearings and uses the synthetic refrigerant R134a. The unique oil-free system offers reliable, hassle free performance and requires minimal installation, servicing and maintenance. A robust PLC control system allows the user to monitor running conditions and optimise efficiency.

Indigochiller is part of Star's range of environmentally conscious cooling and heating solutions for the building services and process cooling markets. Other products include the low charge ammonia packaged Azanechiller. Freechiller – the 'free cooling' solution for IT data centres and Envitherm, providing cooling and heating for hotels, offices and factories.

Star Refrigeration is the UK's largest independent industrial refrigeration engineering company. Star focuses on the design, manufacture, installation, commissioning and maintenance of industrial refrigeration systems.

For more information, phone Star Refrigeration on 0141 638 7916 or email <u>sales@star-ref.co.uk</u>

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