

CASE STUDY

CASE STUDY NUMBER 56: KUEHNE + NAGEL, WELLINGBOROUGH

OCTOBER 2009

STAR DELIVERS COOL SOLUTION FOR LOGISTICS GIANT

Customer:	Kuehne + Nagel		
Location:	Wellingborough, Northants		
Equipment:	2 x LT compressors		
	2 x HT compressors		
	1 x LT Surge drum		
	1 x HT Surge drum / Intercooler		
	2 x Evaporative condensers		
Refrigerant:	Ammonia		
Capacity	500kW Coldstore		
	650kW Chillstore		
Temperature	- 25°C Coldstore		
	+ 2°C Chillstore		

Star Refrigeration completed a £1.4M cold and chill store project for global logistics provider Kuehne + Nagel.

Star designed and installed a high efficiency ammonia refrigeration plant at one of the company's national distribution centres in Wellingborough, Northamptonshire.



Kuehne + Nagel's distribution centre at Wellingborough

The distribution centre carries out, among other operations, food and beverage logistics for leading UK food service operators. Kuehne + Nagel undertakes supply chain management for the distribution of frozen, chilled and ambient products via the UK road network.

Working to a strict time schedule and within the space constraints of an existing warehouse building, Star delivered a turnkey cooling solution for Kuehne + Nagel. Operating on natural ammonia refrigerant, Star's compact dual purpose system supplies cooling to new cold and chill store areas, with 17 vehicle loading docks.

Star Refrigeration Sales Director Rob Lamb says: "As the UK's largest independent industrial refrigeration specialist, Star was able to deliver on time within a tight 23-week installation programme. Our previous experience in the cold storage and distribution sector with the project's main contractor Fitzpatricks also enabled us to meet the target delivery date."

Star's refrigeration plant has a cooling capacity of 500kW for the cold store area, which operates at minus 25 degrees centigrade. The chill store area operates at a temperature of plus two degrees centigrade, maintained by 650kW of cooling capacity.

The system comprises a two stage pump circulation

ammonia plant, with hot gas defrost to the evaporators. As an environmentally conscious natural refrigerant with zero global warming and ozone depletion potential, ammonia overcomes concerns over HFCs.



Star Refrigeration's LT & HT surge drum packages

The compact and highly efficient system features two low and two high stage compressors, a high stage surge drum and two evaporative condensers. The innovative design offers Kuehne + Nagel running cost savings of £50K per annum compared to a conventional pump system.

The low maintenance plant features Star's TELSTAR computerised control system to monitor running conditions and optimise efficiency. The system has remote access via a built-in modem, with a direct link to Star's 24/7 call out facility.

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

Star provides total cooling solutions for refrigeration, air conditioning and process cooling. The company offers a turnkey supply and support package to all users of cooling equipment. Star continues to invest in the development of new products to provide energy conscious cooling systems for the benefit of customers and the environment.

For more information, phone Star Refrigeration on 0141 638 7916, email star@star-ref.co.uk or visit www.star-ref.co.uk Star Refrigeration, Thornliebank Industrial Estate, Glasgow G46 8JW.

1		1	1	4
STAR STAR	STARFROST FREEZING & CHILLING SYSTEMS	PENEC M&E CONTRACTOR	STAR LEARNING SOLUTIONS	TECHNICAL SOLUTIONS
W: www.star-ref.co.uk	Starfrost House Newcombe Road Lowestoft Suffolk NR32 1XA T: +44 (0)1502 562206 E: info@starfrost.co.uk W: www.starfrost.co.uk	Unit 11 Prime Enterprise Park Prime Park Way Derby DE1 3QB T: +44 (0)1332 224141 E: info@penec.co.uk W: www.penec.co.uk	Thornliebank Ind. Est. Glasgow UK G46 8JW T: +44 (0)141 638 7916 E: aprado@elearning- training.com W: www.elearning- training.com	Thornliebank Ind. Est. Glasgow UK G46 8JW T: +44 (0)141 638 7916 E: dblackhurst@starts.co.uk W: www.star-ts.co.uk