

ASDA GETS MORE NATURALLY COOL STAR TREATMENT

Star Refrigeration has completed another innovative cooling plant installation for supermarket giant ASDA, at one of its network of UK distribution centres.

Star has installed an energy efficient refrigeration plant at ASDA's Central Distribution Centre in Lutterworth, near Leicester. The project is the latest cutting edge cooling solution designed by Star to ensure the efficiency of ASDA's frozen and chilled operation.

Star has partnered ASDA on a wide range of distribution centre projects since 1988, including a number of environmental award winning refrigeration systems. In 2006, ASDA was looking for a new refrigeration system to replace an existing R22 plant and meet increased operational demands at its 24/7 Lutterworth facility.

Cooling solutions specialist Star was commissioned by ASDA in a contract valued at over £3million. The 10-month project formed part of a major refurbishment and extension to the chilled facility at Lutterworth. Star worked closely with ASDA and the building contractor to ensure the site remained fully operational and that the installation was completed on time and to budget.

Star's cooling solution for the Lutterworth site comprised an ammonia and carbon dioxide (CO₂) cascade plant. The refrigeration plant is highly energy efficient, reliable and robust by design to meet ASDA's key objectives. The system operates on natural refrigerants and avoids the use of ammonia in populated work areas.

The cascade plant provides cooling to four main refrigerated chambers within the storage and distribution facility. The site has a frozen food cold store operating at -25°C and three large chill rooms, operating from +1°C to +13°C.



Star's energy efficient ammonia and carbon dioxide (CO₂) cascade refrigeration plant, installed at ASDA's Distribution Centre in Lutterworth.

The new refrigeration plant is located in a purpose built Energy Centre adjacent to the main building. The system has an overall cooling capacity of 3.2MW and serves a total internal volume of around 270,000 cubic metres. Star's patented TELSTAR computerised control system ensures optimum

performance and efficiency.

Star Refrigeration Sales Director Rob Lamb says: "Following the success of similar refrigeration plants for ASDA, this was naturally the best solution for the Lutterworth distribution centre. The ammonia and CO2 cascade system combines the very latest in design innovation with natural refrigerant technology."

He adds: "The cascade plant's refrigerant charge is predominantly CO2, with an ammonia charge of less than one tonne. Star has now completed the installation of this type of energy efficient and environmentally conscious refrigeration system for ASDA at four UK sites."

The cascade plant operates with ammonia refrigerant in the high temperature stage and CO2 in the low temperature stage. CO2 is used as the low temperature fluid in a standard vapour compression cycle, rejecting its heat to the ammonia system. CO2 is then used as a high temperature volatile secondary refrigerant for chill areas and general air conditioning.

The low stage CO2 plant has a cooling capacity of 820kW. It supplies low temperature liquid CO2 to six air coolers in the cold store. The high stage ammonia plant operates with a minimal charge. The plant serves 20 air coolers in 3 chill areas and has a capacity of 2.4MW.

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. The company offers a turnkey package to all users of refrigeration plant.

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

				
<p>Thornliebank Ind. Est. Glasgow UK G46 8JW</p> <p>T: 0141 638 7916 E: star@star-ref.co.uk W: www.star-ref.co.uk</p>	<p>Starfrost House Newcombe Road Lowestoft Suffolk NR32 1XA</p> <p>T: 01502 562206 E: info@starfrost.co.uk</p>	<p>Unit 11 Prime Enterprise Park Prime Park Way Derby DE1 3QB</p> <p>T: 01332 224141 E: info@penec.co.uk</p>	<p>Thornliebank Ind. Est. Glasgow UK G46 8JW</p> <p>T: 0141 638 7916 E: aprado@elearning-training.com W: www.elearning-training.com</p>	<p>Thornliebank Ind. Est. Glasgow UK G46 8JW</p> <p>T: 0141 638 7916 E: dblackhurst@star-ts.co.uk</p>