

ANOTHER STAR PERFORMANCE FOR YEARSLEY GROUP

Customer:	Yearsley Logistics
Location:	Heywood, Lancashire
Equipment:	3 off 400kW screw compressor package units
Refrigerant:	NH ₃
Capacity	1.2 MW
Temperature	- 24°C Frozen

Yearsley Logistics has invested in a bespoke high efficiency cooling system from Star Refrigeration as part of an expansion to cold storage facilities at its flagship distribution centre in Lancashire.



As the UK's largest cold storage and logistics company, Yearsley Logistics has 13 sites nationwide including its head office and key distribution facility in Heywood, Lancashire. A recent expansion plan at the site included the construction of two new 57,000 cubic metre cold storage chambers for frozen food.

A world leader in cooling and heating system innovation, Star was chosen to supply a highly

efficient refrigeration plant to deliver cooling for the new cold storage chambers. Star has over 40 years experience in industrial cooling systems for the cold storage sector and is currently providing planned preventative maintenance at the majority of Yearsley Logistics UK distribution sites.



The bespoke refrigeration plant was designed to provide Yearsley Logistics with over 25 years of reliable service, with the lowest possible total lifecycle costs in terms of energy usage and maintenance. Star engineered and installed a single stage pump circulation plant, operating on natural ammonia refrigerant.

The plant has a 1.2MW (Mega Watt) cooling capacity and features three 400kW screw compressor package units, each fitted with a high efficiency electric drive motor. The two frozen food chambers are served by a total of eight evaporators, which maintain a constant air temperature of minus 24 degrees Celsius.

The evaporators operate with pumped circulation ammonia via a surge drum and open flash economiser vessel. The cold store evaporators have a hot gas defrost system, with waste heat rejected to the atmosphere via three air-cooled condensers.



The evaporators and air-cooled condensers incorporate EC fans with integral variable speed drives. This enables efficient operation and yields significant energy savings particularly during periods of part load.

The refrigeration plant is housed in a dedicated plant room adjoining the two new cold storage chambers. The plant room has been designed to accommodate an additional refrigeration system to serve a third chamber, as part of a future expansion plan. This includes extending the pumped glycol under floor heating system, which utilises waste heat from the refrigeration plant oil cooling circuit.

The refrigeration plant is controlled via Star's fully integrated Telstar touch screen computerised control system. This features intelligent functionality including compressor sequencing, evaporator optimisation, floating suction pressure and load shedding in order to minimise plant operating costs.

Star worked alongside the main construction contractor for the project. Independent refrigeration engineering consultancy and plant specification was undertaken by Star Technical Solutions (STS), whilst mechanical and electrical contractor Star M&E Solutions (SMES) was responsible for supplying plant control panels, as well as all electrical works on site. The plant is now being maintained by Star's Manchester branch operations team under an extended warranty agreement.

When it comes to designing and maintaining energy efficient cooling and heating systems, Star is a natural innovator. Star works with strategic cost saving solutions.

For more information, phone Star Refrigeration on 0141 638 7916, email star@star-ref.co.uk or visit www.star-ref.co.uk

				
Thornliebank Ind. Est. Glasgow UK G46 8JW T: +44 (0)141 638 7916 E: star@star-ref.co.uk 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	Wincanton Close Ascot Drive Derby DE24 8NB T: +44 (0)1332 861370 E: info@star-mesolutions.co.uk W: www.star-mesolutions.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@star-ts.co.uk W: www.star-ts.co.uk



				
<p>Thornliebank Ind. Est. Glasgow UK G46 8JW</p> <p>T: +44 (0)141 638 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: +44 (0)1502 562206 E: info@starfrost.co.uk W: www.starfrost.co.uk</p>	<p>Wincanton Close Ascot Drive Derby DE24 8NB</p> <p>T: +44 (0)1332 861370 E: info@star-mesolutions.co.uk W: www.star-mesolutions.co.uk</p>	<p>Thornliebank Ind. Est. Glasgow UK G46 8JW</p> <p>T: +44 (0)141 638 7916 E: aprado@elearning-training.com W: www.elearning-training.com</p>	<p>Thornliebank Ind. Est. Glasgow UK G46 8JW</p> <p>T: +44 (0)141 638 7916 E: dblackhurst@star-ts.co.uk W: www.star-ts.co.uk</p>