

## CASE STUDY: apetito

## PROJECT: Plant upgrade

### STAR CATERS FOR FROZEN FOOD FIRM WITH PLANT UPGRADE

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| <b>Customer:</b>    | apetito           |
| <b>Location:</b>    | Trowbridge, Wilts |
| <b>Equipment:</b>   | Plant upgrade     |
| <b>Refrigerant:</b> | Ammonia           |
| <b>Capacity</b>     | 800kW             |
| <b>Temperature</b>  | Various           |

Star Refrigeration has completed a refrigeration plant upgrade for frozen food and catering specialist apetito at its manufacturing facility in Trowbridge, Wiltshire.

Star undertook a major overhaul of apetito's existing refrigeration system to boost reliability and reduce equipment downtime. By updating the plant control system and replacing ageing components, Star has also improved energy efficiency and reduced running costs for apetito.



For over 50 years, apetito has provided frozen food

and catering solutions to care homes, local authorities and hospitals. The award-winning company also provides a frozen meal home delivery service across the UK via the Wiltshire Farm Foods franchise network.

Originally installed by Star in 1995, apetito's bespoke ammonia LPR (Low Pressure Receiver) system features four refrigeration plants providing multi-temperature cooling. The system supplies over 800kW of cooling for blast freezing and chilling, production areas, a cold store and series of chill stores at the Trowbridge manufacturing facility.

Star was awarded the apetito contract following a competitive tender process. The Total Solution project was completed over 15 weekends, with all work taking place outside factory operation periods to prevent any disruption to production. Star acted as Principle Contractor throughout the project, with Star Technical Solutions (STS) acting as co-ordinator for CDM (Construction Design & Management) regulations.

Operations Manager Andy Bone of apetito says: "Star Refrigeration worked closely with apetito throughout the project and a carefully phased programme of work ensured there was no disruption to production. We're confident that the plant upgrade and new energy enhancing control system will enable us to operate more efficiently, with less production downtime and lower running costs."

The apetito cooling plant upgrade included the removal of evaporative condensers and associated ducting from inside the factory. Star replaced these condensers with 10% larger models to reduce compressor power consumption. The new condensers are supported on a steel frame outside the building with access gantries for ease of maintenance.

The project included the replacement of an obsolete control system with a new Star PLC control system. This provides apetito with the very latest refrigeration management system, with broadband enabled remote monitoring.

Star also fitted its energy efficient Aether control system to optimise condenser fan operation. This computerised PLC motor and pressure control system features a night-time function to reduce fan speed and noise to help meet the site's environmental requirements.

Star was also responsible for installing a new water treatment system for the condensers and a new ammonia detection system. A new corridor cooling/dehumidifying system was designed to reduce moisture ingress to the cold store and increase operational efficiency.

Following the completion of the upgrade project, apetito is now benefiting from Starcare, Star's planned, preventative maintenance (PPM) programme for refrigeration plant operators. This pro-active PPM programme ensures optimum long-term performance and reliability, to increase energy efficiency and reduce lifecycle 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, phone Star Refrigeration on 0141 638 7916, email [star@star-ref.co.uk](mailto:star@star-ref.co.uk) or visit [www.star-ref.co.uk](http://www.star-ref.co.uk). Star Refrigeration, Thornliebank Industrial Estate, Glasgow G46 8JW.**

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