

## ROBERT WISEMAN DAIRIES

- 2007
- Bridgwater
- £1.4M
- Ammonia/Glycol for process & Chillstore loads
- 2,700kW process load & 550kW Chillstore load
- 4 x Star built Grasso 'S' compressor packages
- 2 x BAC CXV evaporative condensers
- 2 x 1,625kW plate heat exchangers cooling glycol to -2°C
- 10 x glycol air coolers for Chillstore
- 1 x glycol buffer tank
- 9 x glycol pumps



The Wiseman's plant reflects the latest technology in terms of energy efficiency including floating head pressure control. The lead compressor, both condensers and all 9 glycol pumps are inverter driven.

## ARLA DAIRIES

- 2005
- Lockerbie
- £450K
- Ammonia/Chilled Water for process load & R404a for Chillstore
- 1,523kW process load & 200kW Chillstore load
- 3 x Sabroe SMC 112 ammonia compressors
- 1 x BAC CXV ammonia evaporative condenser
- 1 x baudelot water chiller & tank cooling water to 0.5°C
- 1 x R404a compressor pack incorporating 3 off Bitzer reciprocating machines each rated at 66kW
- 1 x R404a air-cooled condenser & HPR
- 1 x HPR
- 4 x Chillstore evaporators each rated at 50kW



The Lockerbie project involved the refurbishment and relocation of existing plant from two different sites involving careful coordination and planning between three different Star branches.

## ARLA DAIRIES

- 2004 - 2005
- Stourton (Leeds) Phases 1 & 2
- £1.5M
- Ammonia/Chilled Water for process load & packaged glycol chillers for Chillstore
- 3,500kW process load & 840kW Chillstore load
- 3 x Star built Grasso 'H' ammonia compressor packages
- 2 x BAC VXC evaporative condensers
- 3 x 1,500kW spray chillers cooling water to 0.7°C
- 2 x air-cooled packaged glycol chillers for Chillstore cooling each rated at 420kW
- 12 x Chillstore coolers each rated at 70kW complete with 'Integrated Defrost System'



The Stourton project required very close control of the chilled water temperature and a very close approach temperature. Star naturally delivered a successful solution, installing equipment that achieved a chilled water supply temperature of 0.7°C ± 0.1°C.

## DAIRYCREST

- 2004
- Stonehouse, Gloucester
- £300K
- R407C/Glycol & 270kW Chillstore load
- 1 x water-cooled packaged glycol chiller for Chillstore cooling rated at 300kW comprising 3 x semi-hermetic screw compressors
- 1 x existing site cooling tower
- 2 x glycol pumps
- 2 x Chillstore coolers each rated at 90kW complete with 'Integrated Defrost System'
- 3 x Chillstore coolers each rated at 30kW complete with 'Integrated Defrost System'



The Stonehouse project involved the replacement of an existing, aged and unreliable R22 plant with efficient, modern equipment utilising food grade mono-propylene glycol as a secondary refrigerant.

				
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## MILKLINK

- 2006
- Staplemead, Frome
- £45K
- Ammonia/Chilled Water
- 500kW chilled water process load
- 1 x Star built package unit comprising plate heat exchanger & surge drum to replace existing submerged coil type evaporator
- Reuse of existing ammonia compressor and condenser plant



By providing a solution that reused much of the existing ammonia plant at Staplemead, Star enabled a cost effective alternative to the use of hired air-cooled chillers.

## PRITCHITTS

- 2005
- Newtownards, Northern Ireland
- £252K
- R134A/Chilled Water
- 1,250kW chilled water process load
- 1 x Star built water-cooled IW1250LT **Indigochiller** package unit cooling water to  $2.0^{\circ}\text{C} \pm 1.0^{\circ}\text{C}$ . comprising 5 x Danfoss Turbocor centrifugal compressors, 1 x gravity-flooded shell & plate evaporator, 1 x separation vessel & 1 x shell & plate condenser
- 1 x Star built evaporator pump set comprising inverter driven variable speed run and standby pumps.
- 1 x Star built condenser pump set comprising fixed speed run and standby pumps.
- 1 x existing site cooling tower



The Pritchitts project required close control of the chilled water temperature and a close approach temperature. Star delivered a successful solution by installing a bespoke low temperature version of their standard water-cooled Indigochiller. As well as satisfying temperature control issues the equipment offers unrivalled efficiency by utilising cutting edge variable speed Danfoss Turbocor compressors.

				
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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.

Star offers a turnkey package to all users of refrigeration plant. Established in Glasgow in 1970, the company provides fast response 24-hour technical support from a network of nine branches to customers throughout the UK.

Star's technical advisory arm, Star Technical Solutions (STS), operates as an independent consultancy providing advice on refrigeration engineering issues. Star also owns food freezing and chilling equipment specialist Starfrost, as well as mechanical and electrical contractors Penec.

				
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