

STAR'S FAST TRACK CHILLER SOLUTION FOR LOGISTICS SPECIALIST

Location:	Avonmouth, Bristol
Equipment:	2 x Azanechillers
Refrigerant:	Ammonia
Capacity	900kW (2 x 450kW)
Temperature	- 8°C Ethylene glycol

Food and drink supply chain specialist Culina Logistics has invested in an environmentally efficient chill store cooling system from Star Refrigeration.



The award-winning logistics company required a refrigeration plant for a 100,000 sq ft chill store at its new distribution centre in Avonmouth, near Bristol.

Culina's Cabot Park facility handles ambient and chilled food and beverage logistics for leading UK and European manufacturers.

Working to a strict time schedule, cooling solutions specialist Star designed and installed a high efficiency refrigeration plant incorporating two of its **Azanechillers**. These ammonia packaged chillers are complete refrigeration systems, ideally suited to temperature controlled storage as well as food processing, building services and process cooling.

Star worked as part of a project team to convert an existing warehouse into a fully operational chill store in just 13 weeks. The services infrastructure was installed and initially connected to a pair of temporary chillers. Meanwhile, Star's engineering team designed, built and installed the final **Azanechiller** plant within a total of 18 weeks.

Star Refrigeration Sales Director Rob Lamb says: "Culina's **Azanechillers** were pre-commissioned and performance tested at our manufacturing facility in Glasgow prior to installation on site. This meant the changeover from hired units to **Azanechillers** was fast and straightforward, thanks to offsite testing."

He adds: "As a complete refrigeration package, **Azanechiller** is easy to install. Only an electrical supply and flow/return pipework is required to provide cooling. This cuts down site installation and commissioning time, whilst also avoiding the need for a plant room."

The plant is located externally on a concrete plinth adjacent to the chill store building, which features ten HGV loading docks and four level access doors. Star's Telstar computerised control system ensures optimum performance, with HMI touch screen interface and broadband connection for offsite remote monitoring.



Star's air cooled Azanechiller

The Culina system features two AA750 air-cooled **Azanechillers** with ammonia as primary and glycol as secondary refrigerant. Each **Azanechiller** has an operating capacity of 450kW to maintain the chill store at +2 to +5 degrees centigrade.

Suitable for cooling both water and glycol, **Azanechiller** was developed by Star for environmentally conscious end users. Ammonia is a naturally occurring refrigerant with zero ozone depletion potential and zero global warming potential.

Azanechiller typically offers a 30% increase in performance compared with standard HFC chillers. Its packaged design and careful component selection result in an ultra low refrigerant charge, with all ammonia contained within the chiller and sited outside the warehouse or production facility.

Azanechiller features high quality, industrial components to offer unrivalled performance, reliability and low maintenance. Each unit includes two screw compressors, low noise drive motors, Star's low charge, low pressure receiver and semi-welded PHE evaporator.

Azanechiller is available as an air-cooled or water-cooled unit with cooling capacity from 200kW to 850kW. Air-cooled **Azanechillers** feature high efficiency EC condenser fan technology. Water-cooled **Azanechillers** include a welded plate heat exchanger evaporator to minimise refrigerant charge. Both include floating header pressure control, which optimises efficiency at part load conditions and low ambient temperatures.

For more information visit www.star-ref.co.uk

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Case Study:

Culina Logistics

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