

# Aqua

The Temperature  
Control People.

Case Study | Agriculture & Farming



**Temporary Cold Storage  
Solution for Poultry  
Farm**



## Client

Leading UK Poultry Farm

## Challenge

Seasonal requirement for cold storage

## Solution

Cold storage hire solution incorporating chillers & low temperature fan coils

For many of us, the mention of turkey immediately conjures up thoughts of a traditional lunch on Christmas Day. But, for poultry farmers across the UK, turkeys are a year-round business and with the UK consuming ten million each Christmas, the stakes are high. Temperature control plays a crucial role in helping farmers safely store their produce in readiness for the festive rush.

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## Situation

For several years Aqua have worked with one of the UK's leading suppliers of award-winning turkeys. As their temperature control partner, we supply a packaged hire solution which provides them with temporary cold storage in the run up to Christmas.

Turkey storage is governed by strict rules, more so than ever with the advent of avian flu. Birds must be kept at  $-5^{\circ}\text{C}$ , to prevent bacterial growth and to keep the product in optimum condition. Any quality issues would have a severe impact on our clients' business, both from a financial and reputational perspective.



## Solution

To create their cold storage facility, we supply a combination of **Aqua Pro chillers** and **low temperature (LT) fan coils**. The two work together to provide exceptionally reliable and consistent temperature control. The chillers are sited outside, with the LT fan coils positioned inside the building. High quality hosing connects the two, allowing the chiller to cycle a water/glycol mix to the fan coils. The fans blow air across the cold coils which, in turn, cool the space to the required  $-5^{\circ}\text{C}$ . Our low temperature fan coils offer elevated levels of performance, whilst keeping operating costs low. Each is equipped with a 3-way valve controller and temperature sensing probes closely monitor room temperature. When the required temperature is achieved, the chiller automatically turns off via the valve. Any condensation is rejected by gravity, through holes local to the fan coils. The fan coils within our hire fleet range from 25kW to 70kW in a single unit. For this application they are connected in parallel because of the size of the cold storage area required.

Other benefits offered by LT fan coils include:

- Steel, stackable frame for easy positioning & installation
- Integral electrical defrost elements on cooling coil and within the condense drip tray.
- Supplied with trolley mounted defrost panel and common 32a power supply. This panel includes all inline motor protection for fans, defrost elements and the 3-way valve.
- Easy to use digital controller.

## Results

"Hire is a fantastic option for customers needing cold storage space due to product seasonality" explains Aqua Hire Director, Ben Davies.

**"Whether it's processing turkeys, festive cakes & confectionary or seasonal vegetables, I think people would be surprised at what goes on behind the scenes to produce the typical Christmas meal!"**

"If you're looking for temporary cold storage, we will complete a free site survey, which will establish an accurate heat load calculation, and then propose the best set up for your specific requirements. The team will look after everything, from delivery & commissioning to collection & de-install, and are on hand to support you 24/7"



If you're considering a temporary cold storage project, chat with Aqua on 0333 004 4433