

## Warehouse Cooling for the Drinks Industry



Based in the middle of rural Hertfordshire, a brewing company required cooling over the summer for their new storage facility in the South West. They contacted ICS Industrial Cooling, the UK's specialist in cooling equipment and services, to assist them.

The client's beer kegs are stored in a converted barn which had reached maximum capacity. Therefore, a new 3,500 x 4,000 square foot store was built to cater for the increase in stock.

### Stock Cooling Requirement

The new store was originally set up with a water chiller and gravity coolers, but lacked air circulation and the ability to provide stable temperatures in the warmer summer months and cooler winter season.

The temperature inside the warehouse was continually fluctuating and with summer fast approaching, it was proving difficult to keep the temperature down which left to fluctuate could have resulted in an inferior product and potential losses for both the brewery and its client. With a required temperature of 10°C and no air flow, cooling equipment was desperately needed.

### A Simple Temperature Solution

With many years experience in managing process and storage cooling, ICS were able to provide the ideal solution for the customer.

ICS Sales Engineer, **Ben Newman** recommended and supplied three units; a **71kW TAEvo351 chiller** and two **25kW fan coils**. Due to limited space within the storage facility, the chiller was externally sited and connected to the fan coils which were fitted within the roof void.

The cooling system starts with the chiller which cools the water to the required 10°C which is then fed through to the coil and air from the fan is blown over it; circulating air throughout the store. The cold water is then fed back to the chiller from the fan coil, creating a water circuit. The TAE 351 is able to provide a wide range of temperatures between +20 and -20°C which will easily manage the changeable UK climate.



71kW TAEvo 351 chiller

The chiller contains a large 350 litre buffer tank and circulation pump which draws from the tank to supply the incumbent cooling system. Only a small amount of space was required for the lightweight unit which is built to a width of less than 1m to reduce the space required on site.

The low temperature fan coils are flexible twin fan units, capable of offering 11,200m<sup>3</sup>/hr air flow. They were also supported with a condensate hose, real timer and defrost panel.

## Flexibility for the Customer

Due to the rural location of the site, there was a limited electrical supply to the new storage unit. To overcome this ICS fitted a soft start facility to the chiller which allows the unit to use staggered amounts of electricity as it starts up. This limits the amount of amps from being drawn on start up.

A simple remote control box, built by ICS's manufacturing company **Tricool Thermal** was installed allowing the customer to turn the units on/off by remote control.

*"The units have given us peace of mind, particularly during the summer months. We can easily maintain the required temperature throughout the year with full circulation. With the fan coil installed in the roof and a lightweight chiller, we had no issues with space."*

Director,  
UK based Brewery

## Temperature Control Specialists

ICS are refrigeration and air movement specialists and can provide a cooling solution for any production area, ingredient stores, packaging areas or storage units.

Nationwide, experienced engineers can visit your site on either the same or next day to recommend the most resilient and economic answer to your shortfall.

For further information on ICS's products and services call free on 0800 169 3861 or email [info@icstemp.com](mailto:info@icstemp.com)

