

# Aqua

The Temperature  
Control People.

Case Study | Manufacturing



**Aqua Pro Chiller  
Upgrade for Food  
Manufacturer**

## Client

UK based food processor

## Challenge

Reliability issues with ageing equipment & rising costs

## Solution

Temporary hire chiller + Aqua Pro chiller system

Said to be worth over £850,000 per year, the rice industry is big business within the UK food sector. From dry rice to pre-cooked & prepared products such as boil in the bag and microwavable pouches, rice is a store cupboard favourite. As the maintenance partner for a leading rice processor, Aqua were asked to propose a cooling system upgrade to guarantee reliability and reduced operating costs.

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## Situation

Aqua were initially invited to support with Planned Preventative Maintenance. However, it soon became clear that the ageing chiller on site was proving unreliable and causing risk of production downtime.

When it finally failed, we supplied an interim hire chiller. The rental chiller kept production, and therefore the business, operational whilst a decision was made on a longer-term solution.

There were also access issues on site, with the positioning of existing machinery making things tricky, something our internal design team needed to allow for when planning the delivery & offloading of equipment.



## Solution

Aqua supplied a unit from our Aqua Pro chiller range. The units are specifically designed for the process industry, operating on R454B, a sustainable, low GWP (Global Warming Potential) refrigerant. The legacy chiller ran on R410A, so this gave the client a quick reduction in running costs as well as minimising their carbon impact. The GWP of R454B is 78% lower than R410A.

The Aqua Pro chiller selected included dual refrigerant circuit and dual pumps, giving built in redundancy in the unlikely event that an issue should ever arise. The chiller was finished with an epoxy paint treatment, which is always recommend if a unit is operating in an aggressive or highly industrial environment. Lastly, gasketed plate heat exchangers and dual filters, make maintenance much simpler. The gasketed design means the heat exchangers can be easily cleaned, all as part of the customer's routine maintenance plan, eliminating any risk of blockage.

When it came to installation, the old chiller was skated out, over gravel, until it was close enough to a HIAB to be lifted. Next, the new Aqua Pro unit was slowly & carefully lifted into a very tight space, before being skated over the gravel to its new, permanent home. The entire installation was carried out around the hire chiller which had to continue working seamlessly to avoid production downtime.

## Results

"They say it's the best kit they have ever had, which speaks volumes. I think, after all the issues, the peace of mind their new system gives them is key. They're now assured of continuous operation and can rest easy that the new chiller system has future proofed their business for the years ahead.

**"The customer was really pleased with the project, from start to finish" explains Aqua Sales Engineer, Will Hughes.**

The addition of low GWP refrigerant, combined with the latest efficient chiller technology that the Aqua Pro chiller range brings, will see their operating costs reduce significantly too."



To discover how free cooling could help your business, chat with the team on 0333 004 4433.