

STAR HELPS DELIVER SPECIALIST TEMPORARY REFRIGERATION SOLUTION FOR AGC CHEMICALS EUROPE

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| Customer: | AGC Chemicals |
| Equipment: | Low temperature chillers |
| Refrigerant: | Process fluid |
| Capacity | 150 kW |
| Temperature | - 30°C |

Based in Thornton Cleveleys, AGC Chemicals Europe is a global leading producer of fluorochemicals used in industrial applications, agriculture, construction and much more. When the site was hit by a major failure of one of their process heat exchangers, an onsite contractor recommended Star as the reliable experts for the job.

The equipment failure meant that AGC Chemicals could not operate its refrigerant process line. The process fluid needed to be cooled to below -30°C which required specialist Low Temperature (LT) refrigeration equipment. Downtime on this process line is extremely costly to the business if it is not operational, so it was essential that an assessment and plan of action was developed rapidly in order to deliver the right solution. The client was looking for a temporary refrigeration solution for their process line that would allow them to be operational again as quickly as possible.

A team of senior engineers from Star's local branch attended site within half an hour of the call-out. The issues were established and the temporary solution requirements were identified. Thanks to a business partnership with temporary supplier of chillers, Aggreko, Star was able to deliver the specialist temporary temperature controlled solution to site within a short time frame. Aggreko provided 2 off VLTC chillers for approximately 150kW of cooling to below -30°C, two off heat rejection air cooled chillers, a special LT heat exchanger which was connected into the customer's process line, circulation pumps, a buffer tank and generators.



Aggreko's temporary VLTC chillers on site

Dr. Rudolph Prince, Head of Engineering at AGC Chemicals Europe, said, "The thing that really impressed us about Star was the speed in which they reacted to our situation. We needed the equipment on site as soon as possible so we could start up production again with minimum disruption. It was all coordinated over the weekend, and the

temperature solution allowed us to be fully operational again within a few days so we didn't suffer from further downtime.”

Furthermore, the chemical plant found that the temporary refrigeration equipment was much more efficient than their fixed site equipment. Star's selection of the right temporary solution for the site capacity and temperature requirements delivered a more effective cooling process, allowing for a larger output of product than the plant it replaced. This allowed the site to catch up with the back log of production from the downtime very quickly once they were operational again.



Now that AGC Chemicals are aware of Star Refrigeration's expertise, the companies are likely to form a long term partnership. Star has already delivered a second temporary solution with Aggreko elsewhere on site, and there is scope for consultation on overall site requirements.

In terms of future work at the plant, Star plan to ensure AGC's peace of mind by protecting their business operations-should the unthinkable happen-with Star's Refrigeration Temperature Control Contingency Plan Scheme. This will help the site prepare better for future refrigeration equipment failures. AGC Chemicals will turn to Star for any future equipment installation needs, with Star's technical consultants, STS, ready to undertake a full site survey and produce a technical specification for a new installation to replace the time served plant.

This successful project highlights how Star Refrigeration's UK branch network can provide expertise and a rapid response in an industrial emergency situation. While the equipment failure was unwelcomed by AGC Chemicals Europe, it provided an opportunity for the company to see how more efficient technology could benefit them in the long term, both economically and environmentally.

For more information on Star's preventative services and contingency planning visit <http://www.star-ref.co.uk/news/chiller-contingency-planning-for-critical-cooling-situations-keeps-star-refrigeration-customers-cool.aspx>

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Case Study: AGC Chemicals