



Case Study:

# Grocers' Hall

Chiller Solutions



Grocers' Hall is an exquisite venue in central London that is steeped in history and tradition. Dating back to 1426, this 600 year old organisation in the heart of the City has seen plagues, the Great Fire of London, two World Wars, a devastating fire in 1965 and now the Covid-19 Pandemic. Surviving them all, the building has been sympathetically restored and decorated to provide the most elegant of settings for venue hire, along with being the home of the Grocers' Hall Charity.

Grocers' Hall approached Airedale via their specialist contractor and FM teams, UIMS (Universal Installation and Maintenance Services Ltd) and KCE FM, to replace an existing, failing chiller and overcome several challenges in doing so.

The chiller to be replaced, which was not supplied by Airedale, had been connected to an evaporative dry cooler using pre-existing 3 inch pipe work. On investigation, the pipework was shown to be chronically undersized for the chiller duty. Installing a new rising main was not an option given the disruption it would have caused within the building and therefore UIMS, and subsequently Airedale, were tasked with supplying a solution that could deliver the maximum output from the available services.

Serving the hugely popular function rooms and public area spaces via four AHUs connected to the chilled water circuit, the maximum duty requirement was 160kW. A 200kW Ultima water cooled chiller was thus selected to meet this duty without it being pushed to its maximum capability. The chilled water pumps were replaced

with modern direct drive units and the condenser pumps were vastly upgraded to the maximum working volume of water that could be accommodated by the available 3 inch pipework. UIMS also converted the existing chilled water and heating circuit to a pressurised system and made minor control alterations.

With the specification agreed, a further challenge to overcome was that of access. The chiller had to sit in the basement plant room, in the footprint of the chiller it was replacing. When the old chiller was installed, it was craned into an opening cut into a car park - disruption and expense that our client was not looking to repeat. This meant that the only access to the plant room was down narrow corridors and through awkward openings, so often found in buildings as old and as preserved as Grocers' Hall.







Peter McMillan, Director at UMIS said

*“It was a real pleasure to work on such an historical site with Airedale. The proactive and solution-focussed nature of the team meant that the challenges we faced were readily overcome with practical solutions, that didn’t impact on the quality of the goods and service we received.”*

Working closely with UIMS, KCE FM and Grocers’ Hall, and following a detailed site survey, the agreed solution was to design and build the chiller at Airedale’s state-of-the-art, R&D centre in the UK, where it could be fully tested. Once built, tested and approved, the chiller then had to be stripped back down to component level and delivered to the London site in a pre-planned and carefully executed sequence. Whilst complex and time-consuming, this meant the components could be more easily delivered through

the awkward access points without damaging any of the building or its interiors, and re-assembled in a relatively small space, with specialist lifting equipment playing an essential role in the completion of this task. Working collaboratively, with full co-operation from everybody involved and excellent communication throughout, the chiller was successfully installed and operational in November 2021 and the client has reported how happy they are with the results and on-going performance.



**Solutions**

- Ultima Water Cooled Chiller
- Designed, built, tested and approved at the Airedale R&D centre of excellence
- Dismantled for delivery
- Delivered in sequence via existing narrow access points
- Re-assembled on site, in situ
- Working with existing, but restrictive pipe work to deliver maximum output
- Results: a reliable air conditioning system that meets the requirements of the building
- 100% client satisfaction.