

Sector: **Water Schemes**

Project: **Haweswater Aqueduct, Cumbria**

One of the UK's longest water pipelines **required an end-to-end ventilation solution**



Understanding the Challenge

Haweswater Aqueduct, which provides fresh water from the Lake District to Manchester, is one of the largest and most important water pipes in the UK. Water company United Utilities needed to conduct a detailed structural analysis of the 2.6m diameter, 90-mile (134km) long pipe that is hundreds of feet below ground in places. The aqueduct hadn't undergone such analysis since it was commissioned in 1955.

A 280-strong team of contractors, dubbed "aquanauts", were specially chosen after undergoing extensive training to deliver the project that cost £22million and took 10 years to plan.

With some sections of pipe 19km long this really was 'unchartered territory' and ensuring the safety and wellbeing – both physical and mental – of the crews that entered the aqueduct was vital. The depths, confined spaces and pipe deposits made it feel like another planet.

Creating the Right Solution

With so many confined areas, accessibility issues, very long sections with the potential of gases being released, and the lives of so many workers at stake it required no ordinary team or equipment to ensure adequate ventilation was in place.

Vital experience gained on the Thirlmere Aqueduct meant RVT Group were called in at the early stages of the Haweswater Aqueduct scheme to ensure the temporary ventilation aspect of the project would be provided flawlessly.

- ✔ The requirement for 30 large fans located at multiple access points in remote areas of the Cumbria and North West countryside posed a logistical challenge.
- ✔ High-powered ventilation units with specially adapted switching, stand-by power with automatic changeover and GPS backup, along with rigorous on-site performance testing, ensured the project was successful.
- ✔ All equipment was delivered on time to the right location and RVT were able to ensure all operatives had a safe working

Providing Real Benefits

With United Utilities confident that their air quality control requirements were in safe hands, they were able to concentrate on the mammoth task of conducting the surveys. This included organising over 400 workers to operate on 45 separate projects to ensure the network of supporting treatment plants could take the strain whilst Haweswater aqueduct was offline.

The Project Manager said prior to the project commencing that “we need total confidence that those involved are entirely up to the task”. RVT proved they were.



VENTILATION CONTROL SOLUTIONS



High powered VENTEX Fans designed to maintain pressure over long lengths of ducting forced high volumes of fresh air into aqueducts located deep underground.



VENTILATION CONTROL SOLUTIONS



All equipment was delivered on time to multiple locations in some of the most rural areas of England.



VENTILATION CONTROL SOLUTIONS



High-powered ventilation units were specially adapted with power light indicators, stand-by power options with automatic changeover and GPS backup.

World-class solutions for world-class success

We're focused on delivering solutions that overcome our customers' challenges, and firmly believe that a team with a real can-do attitude can achieve anything.

With proven success on some of the world's most prestigious projects, we ensure our customers keep working efficiently and effectively and get the job done safely wherever they are.

Contact us to discuss out how RVT Group can help you overcome your next challenge in the Water Scheme Sector on **+44 (0) 844 324 0601**



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