



Enhancing Otterbourne Water Treatment Works with Cubis' Pioneering Network Access Solutions

Client

Southern Water

Location

Otterbourne, Hampshire

Product

STAKKAbox™ Ultima
Connect Chambers,
MULTIduct™,
AX-S™ Composite Covers

Sector

Water

Year

2021

Background:

Nestled in the Hampshire countryside, Otterbourne Water Treatment Works (WTW) plays a pivotal role in the treatment of borehole and river water, facilitating the supply of clean water to the surrounding area, estimated around 250,000 homes.

With the site having been constructed in 1939, it has endured through the ages and due to prolonged use, assets within the surface water stream and lack of control integration, resulted in the immediate requirement of capital maintenance works. The need for a resilient water supply is important not only to protect water quality, but to also ensure the health and security of delivering responsible water use management to the surrounding built environment.

Challenge:

With two incidents causing loss of supply, occurring in less than three months apart, Southern Water was determined to deliver a cost-effective project, that delivered to extremely tight deadlines. The site design brought its own challenges with spatial limitations for accommodating multiple ducts runs, along with ensuring minimal disruption to water supply.

Solution:

To tackle these obstacles, Southern Water, in collaboration with the contractors, worked closely with Cubis to explore its product portfolio to implement the most effective solutions to optimise speed of installation, space utilisation and cost.

RapidSTACK™

- Offered a modular and space-efficient solution that allowed for the creation of a secure and easily accessible underground utility chamber without the need for extensive excavation. The modular design of the chamber along with its lightweight composition facilitated rapid and flexible installation, minimizing downtime during construction.

STAKKAbox™ ULTIMA Connect

- Utilised flexibility by offering a durable system that was quick and easy to install. The modular design, allowed for variability in size with systems being constructed in under one hour. The innovative design allowed for a single person lift, reducing overall install time and health and safety risks.

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MULTIduct™

• Offered a modern alternative to traditional cable ducting systems, by effectively managing and organising utility lines into single units that were joined together to construct a complete duct run. A flexible, yet structural system that eliminated the need for large excavation optimising available space. With its unique ‘push fit system’, MULTIduct™ promoted a quick and easy install.

AX-S™ Composite Covers

• Selected to provide a secure access point to the chambers and utilities underground. The lightweight composition along with robust properties ensured a cover that could be easily lifted when access was needed, reinforced with corrosion resistance properties, ensuring a longer service life. The track. Being made from GRP provided significant health and safety advantages due to its lightweight properties with no parts being over 12kg in weight, as opposed to the traditional concrete alternatives that require heavy plant to manoeuvre them into position.

Results:

- Cost Savings: the utilisation of composite modular access chambers and cable troughing systems, enhanced project delivery, by offering a lightweight solution that could be easily built on-site by a single person. Removing the need for further machinery at install, along with further reductions in excavation work contributing to overall cost savings.
- Space Efficiency: By adopting STAKKAbox™ chambers and MULTIduct™ cable protection, the project benefited from the modular design, flexibility, and variability of sizes available, allowing systems to be built over existing networks.
- Time Savings: With ease of build and rapid installation. Cubis’ products supported a quicker project completion time, reducing downtime and operational disruptions.

Conclusion:

The Otterbourne WTW project serves as a successful example, that when modern solutions are incorporated, project deliverables will be exceeded. The implementation of Cubis’ network access solutions effectively optimised costs, utilised space efficiently and ensured the long-term reliability of the wastewater treatment facility, ensuring the delivery of filtrated water to surrounding communities.