



WCS Delivers Turnkey Water Treatment Solution for Vaillant with Precision and Excellence

Background

WCS Environmental Engineering recently completed a significant water treatment installation for Heating systems manufacturer, Vaillant. Delivered as a turnkey solution, the project involved complex installation work over five months and was handed over in May 2024. This detailed, specification-driven project involved the supply and installation of essential water treatment equipment, with an emphasis on safety, efficiency, and regulatory compliance.



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Project Scope and Highlights

Designed and implemented to meet rigorous tender specifications, this project included a complete water treatment system alongside the installation of critical components tailored to the client's needs. Here are the main aspects that defined this project:

- **Complete Turnkey Installation:** From water treatment equipment to plant infrastructure, WCS provided a fully integrated, end-to-end solution that included pipework, essential fittings, and detailed installation.
- **Installation of a 22.5M³ Category 5 Cold Water Storage Tank (CWST):** This CWST included a K-Type ball valve, internal and external safety rails, ladders, and a custom base. The installation was executed with safety as a top priority, ensuring all features met compliance standards.
- **Duplex Water Softener:** Essential for ensuring water quality and efficiency, the duplex water softener was installed to meet the project's specific water treatment needs.
- **Drain Tank with Dual Pump Set:** A 1M³ drain tank fitted with a dual pump set to ensure reliable drainage, forming an essential part of the water management system.
- **High-Powered UV Plant with Intensity Monitor:** Designed for optimal water treatment, the 4" UV plant includes an intensity monitor, adding an extra layer of water safety and treatment quality.
- **Pressure Check Station with Drain Tank and Pump:** A small drain tank and pump station designed for pressure checking and topping up, equipped with a tundish and drain for overflow management.
- **Automated Control with PLC System:** A PLC controller was installed to automate pump and valve operations, complete with alarm systems for level sensors, enhancing operational control and ease of maintenance.
- **Motorised Valves for CWST Inlet and Outlet:** The installation included motorised valves on both the CWST inlet and outlet, along with the drainage system, to improve system control and efficiency.
- **Comprehensive Pipework with Sample Points:** All pipework was installed to specification, featuring sample points for ease of monitoring and compliance with water quality standards.

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Project Completion and Client Benefits

Completed in May 2024, this turnkey solution met all of Vaillant's specifications, delivering a fully operational and easy-to-maintain water treatment system. The collaborative approach of WCS Environmental Engineering ensured that each component was meticulously installed to ensure reliability, efficiency, and safety.

