

State-of-the-art water purification for modern university labs (*Scientific*) | Case Study

The Client

A leading London university was carrying out a major refurbishment, consolidating all the earth science laboratories under one roof.

The benefit

- Old and energy inefficient water unit replaced with modern systems supplying Type I and Type II water to four laboratories.
- Space savings thanks to wall-mounted wraparound docking vessels.
- Cost savings due to reduced running and maintenance costs.

Results

Installation was completed just six months after the initial enquiry. A geochemical technician involved in the project at the university said: "The PURELAB Option S7 and PURELAB flex 2 modules supply ultrapure (18.2 MΩ.cm) and deionised (15 MΩ.cm) water on demand to cover all of the varied requirements of our wet chemistry labs and specialist application suites. Significantly, these systems are incredibly user friendly, both in daily operation and basic maintenance. Overall, the process of identifying units to meet our specifications through to installation and operation has been very straightforward, and the Veolia team has been helpful in providing support and guidance each step along the way." The new water purification systems fully met the client's specification, delivering cost and space savings without compromising on the quality of the supplied water.

The Client's Needs

A large, old and inefficient water system comprising an RO system and an ultrapure unit needed to be replaced to provide Type I and Type II water to four laboratories. The installation had to be cost-efficient and maximise bench space, balancing supply and demand without creating an excess of purified water to minimise storage demands.

The Solution

Four localised and independent water systems were supplied – rather than a centralised ring main – to mitigate the impact of downtime; if one platform requires maintenance, there is still water available in the other three labs. Each of the water supply systems comprises a PURELAB® Option S7 module and a PURELAB flex 2 unit, which were identified as being the most suitable systems in light of the desired cost and space savings. The PURELAB Option S7 units are mains fed and provide Type II water for general lab use, such as glassware rinsing and washing, as well as supplying the PURELAB flex 2 modules, which produce ultrapure water for LC-MS and other analytical techniques.



Each PURELAB Option S7 unit sits in a 35-litre, wraparound docking vessel, eliminating the need for separate water tanks, and the single-pass system minimises storage in comparison to an equivalent recirculating unit. Three out of the four units are wall-mounted to free up bench space, and the modern technology reduces the cost of maintenance, as purification cartridge replacement is determined by sensors rather than a fixed schedule.



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