

High purity water for Tameside Hospital Blood Sciences Department, UK

Scientific | Case Study

The Client

Tameside Hospital in Greater Manchester, UK, is a typical district general hospital, serving a population of approximately 250,000 and provides a wide array of healthcare specialities including A&E, maternity,

ICU and paediatric services. The Hospital is run by Tameside Hospital NHS Foundation Trust and has 524 beds.



Tameside Hospital

Key Figures

The Beckman Coulter AU5811 Clinical Chemistry Analyser requires 86 litres per hour of bacterial free high purity water.

The Client's Needs

Tameside also has a busy blood sciences department which process and analyse routine and urgent samples 24/7/365.



Beckman Coulter AU5811 Clinical Chemistry Analyser

It's vital their analysers operate reliably, rapidly and with minimum downtime, so when their existing equipment was due for replacement, Tameside decided to install the latest Beckman Coulter AU5811 high throughput Clinical Chemistry analysers, backed up by a smaller member of the AU chemistry family, the AU640.

These units need a total of 86 litres an hour of bacteria free high purity water meeting CLSI Type I clinical laboratory reagent water (CLRW) quality standards. For this critical supply Beckman Coulter turned to Veolia Water Technologies.

Beckman Coulter and Veolia had worked together before and had designed a purified water purification system to meet the demands of critical analytical laboratories, not only in terms of consistent water quality but also in total availability of that water. Total availability means that purified water is always on tap even during routine system and loop sanitisation and servicing.

The Solution

To ensure high availability of purified water, Veolia provided two stacked MEDICA® Pro RE120 water purification systems, these combine reverse osmosis, ion exchange, UV and microfiltration to deliver up to 120 l/h of water with 10MΩ.cm resistivity, TOC <30ppb and bacteria <1cfu/ml, all well within the CLRW Type I limits.

Each MEDICA® Pro on its own can supply sufficient water for both analysers and the supply is via twin independent distribution loops with duplex take off manifolds which enable both loops to supply both analysers simultaneously. This allows loop sanitisation and MEDICA® Pro servicing without interrupting analyser operation. A remote dispense station has also been fitted to provide water for general laboratory use.



MEDICA® Pro

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According to Geoff Lavelle, Deputy Diagnostics Manager (Pathology) at Tameside, the installation of the MEDICA® Pro's was extremely well planned and organised. "The Veolia engineer worked around the department's existing equipment and liaised with staff to ensure the minimum of disruption to our services. The AU5811 and AU680 installation was professionally accomplished; the equipment was up and running within 1 working day of arrival. Evaluation and on-site staff training followed, with a full go-live running occurring a just a few weeks later as planned."

The Benefits

The installation of the new equipment as well as training was achieved with minimum disruption to the pathology staff and users of its services. Tameside has noticed a more rapid throughput of samples with the new analysers, and has also gained increased bench space from the floor standing water systems.

The maintenance has also been greatly reduced, generating a saving of approximately 2 hours per day of biomedical scientist time. In conclusion, the new Beckman Coulter AU5811 and AU680, in conjunction with the Veolia Twin MEDICA® Pro system have proved to be two of the most reliable pieces of diagnostic equipment available. The project was delivered on time and with a glowing seal of approval from the Tameside blood science staff.

Results

- Quicker throughput of samples
- Increased bench space
- Reduced maintenance
- Time saving
- Increased reliability

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