ARMSTRONG

STUDIED PERFORMANCE

AN EDUCATIONAL FACILITY INSTALLATION

The pump upgrade is expected to deliver a saving of approximately £22,600 per year in energy costs, and payback on the investment in less than 3 years.

Leading UK University

Armstrong's Design Envelope 4200 pumps use integrated intelligent controls for easy installation and commissioning. Compared to traditional pump designs, Design Envelope pumps reduce energy use by up to 75%. Active Performance Management using the Pump Manager service ensures the lowest lifecycle operating cost.

Background

A recent pump upgrade by Armstrong Fluid Technology is delivering major energy savings at a leading university. The installation of six new Armstrong 4200 series pumps is expected to reduce carbon emissions by up to 50,800 kg of CO_2 annually. Initial projections estimated an energy cost saving of £22,600 per year with a payback period of under 3 years. Given rising energy prices, the actual savings and ROI are likely even greater.

The university's estates team initiated the project to upgrade the heating and hot water systems with new pumps. The goals for the project included reducing energy use, improving environmental performance, and cutting maintenance costs. Armstrong's Design Envelope pumps offered an ideal solution. These pumps use variable-speed, demand-based operation to deliver only the energy needed for the current load, maximizing efficiency. They operate effectively across a wide range, maintaining performance and efficiency as the building usage changes.

Armstrong managed the equipment swap using a mini crane lift from the street, which allowed the team to place the pumps in the plant room, through a ceiling void.

The upgrade also included Pump Manager, a cloud-based service that tracks system performance in real-time. By identifying issues such as excessive vibration, cavitation risk, or mechanical wear Pump Manager enables a proactive approach to maintenance.

Using Design Envelope technology together with Pump Manager, the university benefits from reduced operating and maintenance costs, improved pump reliability, and better comfort levels for building occupants. The upgrade project also supports the university's broader sustainability goals by reducing energy use and simplifying energy reporting.

UK National Sales Manager, commented, "The key to sustainability lies in the ability to obtain real-time data on the performance of important energy-consuming HVAC system components such as pumps. By accessing this information via Pump Manager, the estates team will now be able to optimize the performance of the system and maintain the best possible levels of efficiency."

> The key to sustainability lies in the ability to obtain real-time performance data.
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> UK National Sales Manager

Tech-info

- 6 x Armstrong Design Envelope 4200 Pumps

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