

REMOTE MONITORING AND PUMP INTELLIGENCE SAVES UP TO 80% ENERGY

GRUNDFOS **iSOLUTIONS**



SLIGO HOSPITAL

SEE HOW WESTERN IRELAND'S SLIGO HOSPITAL HAS SAVED MONEY AND SOLVED ITS DELTA T PROBLEM WITH INTELLIGENT SOLUTIONS FROM GRUNDFOS

Sligo University Hospital had a “very inefficient” boiler plant and heating system, says Declan McGoldrick of the hospital’s HSE Estates Department. The circulation pumps were constant speed pumps. They were delivering hot water at medium temperature – 130 degrees C. “The seals were breaking on them. They were

causing a multitude of maintenance issues. The heating circuits here at Sligo University Hospital are long. Consequently, we had substantial pipe losses occurring from them. This meant our Delta T was not working as efficiently as it could have and were at a lower rate than the original design.”

80%
ENERGY SAVINGS

FULL CONTROL

EASY OPERATION



THE SOLUTION

The hospital upgraded its boiler house, replacing its fixed speed pumps with intelligent MAGNA3 and TPE3 pumps from Grundfos. “Grundfos pumps can auto-adapt to the particular load that’s on the circuit,” says Declan McGoldrick. The pumps fixed the Delta T problem. “We use temperature stats in the return pipes to determine the Delta T between the flow and the return, allowing us to calculate our heat output on the pump. The mass flow rate can be calculated from the pump itself.”



From left, Michael O'Brien and Declan McGoldrick of HSE Estates Dept. at Sligo University Hospital, with Liam Kavanaugh of Grundfos Ireland in the hospital's boiler room.

A WORLD OF DIFFERENCE

"We are saving in excess of 70 to 80 percent on electrical usage on our new pump system," says Declan McGoldrick. They are fine-tuning those savings further by reviewing the operating data through the Grundfos GO app, a platform for mobile pump control. In addition, the pumps' Heat Energy Monitor automatically calculates the heat output and flow rates. The pumps are controlled by BACnet communications cards that work over the hospital's BMS system. "We use the information from this system to have better control over some of our processes within the hospital and to make further savings." The hospital's old system had no communications at all. "The pump was just switched on. There was no information coming back from the pump. So there is a world of difference between what we had before and what we have now. This is a real positive step for us in the control of energy on heating within the hospital."



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Declan McGoldrick
Project Manager
Sligo University Hospital