
Energy treatment working better than expected

HOSPITAL ACHIEVES UNEXPECTED DRAMATIC REDUCTION IN ELECTRICITY CONSUMPTION BY SWITCHING TO GRUNDFOS MAGNA PUMPS

TOPIC:
Reduced energy consumption

LOCATION:
Århus Municipal Hospital

COMPANY:
Grundfos

Part of the vision of Århus Municipal Hospital is a desire to be known as “a ‘green’ company that recognises its responsibility to the external environment.” In order to reduce electricity consumption – and thus save money and take care of the environment – the hospital installed seven Grundfos Magna pumps in the spring. The operation was a success!

Engineer René Kjellerup is an energy manager in the technical department at Århus Municipal Hospital. His task is to reduce energy consumption as much as possible, and therefore his interest was immediately awakened when he read about the new Grundfos Magna pumps in a magazine last year.

Kjellerup’s focus is not so much on the environment as on how much money could be saved on the energy bill. Every time he can document a reduction in the energy bill, he can use the money saved to invest in new initiatives, which in turn will save more energy.

ZERO READING ON ELECTRICITY METER

The hospital has really saved money with the seven Magna pumps so far installed. Kjellerup asserts that their experience of them has been so good that he would not hesitate to invest in several more of the same kind.

He was not so sure of this at first so he decided to check how much electricity consumption had been reduced after six of the Magna pumps had been installed in a dual heating system.

“I was convinced that something was wrong with the new pumps as my gauge did not register anything at all. Later, however, it dawned on me that this was because the energy consumption was lower than the instrument was capable of registering – i.e. below 80 watt,” explains Kjellerup.

Using a Grundfos R100 remote control, he subsequently succeeded in measuring the energy consumption – it was between 30 and 40 W for each of the six pumps. This extremely low power consumption was due to the fact that the pumps were idling. That was at the end of May when it was warm outside. An equivalent reading for the Grundfos UPE pumps in use prior to the Magna pumps would have registered electricity consumption five or six times higher during the same month.

DELIVERS MORE THAN PROMISED

Product Manager Carsten Nørgaard from Grundfos is pleased that the Magna pumps have been able to help Århus Municipal Hospital in saving money on its electricity bill. However, he is not so optimistic as to expect a reduction in electricity consumption at a ratio of 1:5 on an annual basis.

“I am surprised that the savings at Århus Municipal Hospital have been so large, but this is probably because the readings were taken at a time when the heat consumption – and thus the pressure on the pumps – was very low. Only when we have readings for the whole year will we be in a position to say how great the savings have actually been,” comments Nørgaard, continuing:

“The Grundfos UPE pumps previously installed are electronically controlled just like the Magna pumps, and thus have significantly lower energy consumption than conventional pumps. Therefore, we would not normally promise electricity savings of more than 30 percent, although it is gratifying that we are delivering more than we promise.”

INVESTMENT PAYS FOR ITSELF WITHIN TWO YEARS

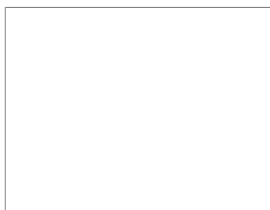
The Magna pump’s ability to save energy has already been documented in another installation at Århus Municipal Hospital – a unified system responsible for 3.5 percent of the hospital’s heating supply. According to Kjellerup’s readings, electricity consumption for this Magna has been reduced by a quarter compared to the UPE pump it replaced.

“This results in a pay-back time of under two years, and as this is so short, we are in no doubt at all. So we are ready to invest in new pumps without delay,” says Kjellerup.

These excellent experiences with the Magna pumps will be communicated to others through a reference in the hospital’s environmental report. The pumps are by no means the only Grundfos products in use at the hospital – others are used for compression and domestic water, etc. And Kjellerup has no plans to change supplier – quite the contrary.

“I am highly satisfied with our partnership with Grundfos, and I am convinced that Grundfos pumps can help us to find even more energy savings,” he concludes.

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GRUNDFOS MAGNA/UPE

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