# CASE STUDY



### Vacon drives down the cost of swimming

As part of its on-going drive to monitor and reduce energy usage and CO<sub>2</sub> emissions, One Leisure, the division of Huntingdonshire District Council responsible for sports and leisure services, found that the pumps in its swimming pools were consistently using more energy than appeared to be necessary. After investigating the situation, controls expert Digicon Solutions implemented a solution based on Vacon AC variable speed drives, which is expected to deliver savings of £4,500 per year.

Digicon's evaluation of the pump installations at the One Leisure swimming pools in Ramsey, Sawtry and Huntingdon found that they had all been sized to provide generous reserve capacity that was not needed during normal operation. Unfortunately, however, the pumps were fitted with ordinary single speed starters, which meant that they always operated at full speed, irrespective of the actual requirements.

On the basis of its findings, Digicon suggested that fitting variable speed drives, which would allow the pump operating speed to be matched to demand, would significantly reduce energy usage. The company advised that the potential for savings in applications of this type is very good, as the power used is proportional to the cube of the speed, which means that reducing the pump speed by just 25% would cut energy requirements by almost 60%.

To help One Leisure make a business case for installing variable speed drives, Digicon prepared a detailed report that clearly set out the project costs and the anticipated savings. Following submission of the report, approval to proceed was readily obtained.

Digicon selected 7.5 kW and 4 kW Vacon NXL AC variable speed drives as the basis for its solution, as these units are dependable, compact and cost-effective, and they are available in IP54 versions that could be mounted directly on the wall in the swimming pool machine rooms without the need for additional enclosures. For this application, Digicon modified the drives by fitting them with a day/night selector switch.

Following the installation of the new drives it was, as anticipated, found possible to run the pumps at reduced speed even when the pool was in use, and the day/night selector made further savings possible by allowing the pumps to operate at minimum speed when the facility was not in use. The projected savings of £4,500 per year means that One Leisure will recover the purchase and installation cost of the new drives in just one year.

Commenting on the success of this project, Pete Corley, the Quality, Facilities and Safety Manager at One Leisure, said, "This scheme is one of several we are implementing at our facilities to cut energy consumption, to reduce bills and to help combat climate change. We asked Digicon and three other companies to look at our requirements, but the professionalism with which Digicon handled the whole process from start to finish made it the clear choice."

"The company's attention to detail was particularly welcome – the other potential suppliers seemed content to do no more than quote over the phone. In addition, the report that Digicon provided was extremely helpful in securing funding for the project. We were equally pleased with the time scale of the installation, and with the company's success in ensuring that there was no disruption to our operations."

"The Digicon team also provided invaluable on-site assistance for our staff, particularly in Huntingdon where we had a problem with one of the pump motors. This was not in any way related to the new drives, but Digicon helped us to identify the problem, which meant that we were able to prevent damage to a second pump. I would have absolutely no hesitation in recommending Digicon in the future."

Ends – 606 words

#### **Notes for Editors:**

Vacon is driven by a passion to design, manufacture and sell only the best AC drives on the planet — and nothing else. AC drives can be used to control electric motors or to help generate power from renewable sources. Vacon has R&D and production units in Finland, the United States, China and Italy, and sales offices in 27 countries. In 2009, Vacon had revenues of EUR 272 million and globally employed 1,200 people. Vacon's shares (VAC1V) are listed and publicly traded on the Helsinki Stock Exchange.

Driven by Drives, www.vacon.com

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