



“NFO Sinus® solved the operating problems in our Nanotech Laboratory”

Chalmers Nanotech Laboratory at the Institute for Microtechnology and Nanoscience - MC2 - contains super clean rooms where very high standards for moisture, temperature and air purity are required. For everything to be as environmentally friendly as possible, all emissions must be checked and energy consumption must be optimized.

“Thanks to the NFO Sinus® frequency inverter we have now solved the scrubbers problem in our laboratory,” says Christer Andersson, Research Engineer at Chalmers Nanotech Laboratory in Gothenburg.

“At first our pumps were directly connected to the mains and the water flow was controlled by induction taps. This meant that the pumps had to work at maximum power and were therefore exposed to too much wear. There was a harsh force in the water system on start up and stop, which broke the flow indicators. To solve the problem we searched for a suitable frequency inverter with a soft start.

As our entire ventilation system is equipped with conventional frequency converters, we were aware that these caused real problems as regards noise, electrical disturbance and bearing damage to the engines,” continues Christer Andersson.

“We found NFO Sinus®, which is a new type of frequency inverter that creates a sine wave output voltage. This allows us to achieve the perfect soft start and correct pump frequencies without other operating problems arising so, it ensures both operating safety and a quiet system. Another advantage of this new technology is the electrical installation, which is much simpler and cheaper, as we don't need shielded cables and are not limited by cable lengths.”

“From a purely financial viewpoint, saving electricity is a very important factor in addition to achieving a longer lifetime for the pumps. If we can control all of the fan motors and pumps with the frequency inverter, we will save a great deal of electricity. We estimate that the installation will pay for itself within 1-2 years,” concludes Christer Andersson.

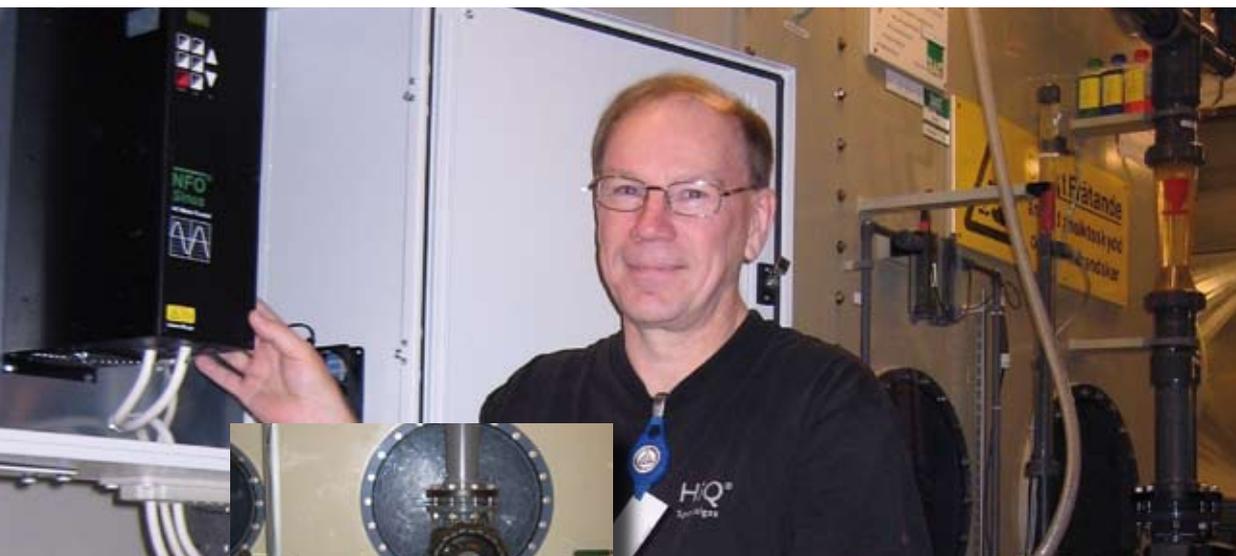


Photo: Christer Andersson

– With NFO Sinus® we now have obtained both operating safety and a quiet system and we estimate that the installation will pay for itself within 1-2 years,” says Christer Andersson.

Scrubbers are used to clean the air of the chemicals in the drawbenches. Air is driven through a zone in the scrubbers that contains showerheads. The water is treated to stop harmful substances entering the environment.

NFO DRIVES

NFO Drives AB
Box 35
SE-376 23 Svängsta
Sweden

Tel: +46 (0)0454 – 370 29
Fax: +46 (0)454 – 32 24 14
E-mail: info@nfodrives.se
www.nfodrives.se