

---

WARRINGTON, UK, MAY 14, 2002

## Large savings at private bank

Energy savings in the region of 90% have been achieved for the air conditioning system at Coutts & Co, the international private banking arm of Natwest Group, in London, with the help of drive technology from ABB, saving some £70,000 per annum.

One 4kW, one 22kW and two 75kW drives are now driving the pumps for chilled, hot and condenser water, as well as medium pressure water for the boiler room.

"The pumps are now running at about 40% of maximum speed, whereas before, they would be running at 100% continuously, confirms Mike Ingram, Facilities Manager at Coutts & Co.

"In addition, the hot water is used more efficiently, saving gas. Before, we would pump water out at 40°C at get it back at 40°C. Now, the return water is at 32°C."

Sensors in the pipework, connected to the drives, help regulate the speed of the pumps to ensure optimum usage of the water's energy content. The system is coordinated with the Building Management System, enabling easy control of the indoor climate. The lower pump speed also reduces wear, saving maintenance.

"This installation shows the staggering energy savings that can be achieved with variable speed drives," says Mike Carman, UK Sales Manager HVAC at ABB. "This is because the variable speed drive runs the motor at the speed needed by the process, rather than running the motor continuously at full speed irrespective of requirements."

Simple recirculation is the least efficient way of running a pump, as the pump runs at full speed regardless of the output needed. Already small decreases in pump speed give large energy savings, when a variable speed drive is used. Decreasing a centrifugal load, such as a pump, gives a power decrease based on the cube of the load. The savings can be massive however for reasons of pump efficiency it is difficult to achieve savings of more than 90%.

The variable speed drives have worked so well that Coutts & Co has also decided to install variable speed drives for the pumps in the cooling tower.

"The building is now 20 years old and the electromechanical plant is uneconomic to maintain. We have therefore decided to replace it with variable speed drives," says Ingram.

**ABB (ABBN: SIX Swiss Ex)** is a pioneering technology leader in power grids, electrification products, industrial automation and robotics and motion, serving customers in utilities, industry and transport & infrastructure globally. Continuing a history of innovation spanning more than 130 years, ABB today is writing the future of industrial digitalization with two clear value propositions: bringing electricity from any power plant to any plug and automating industries from natural resources to finished products. As title partner in ABB Formula E, the fully electric international FIA motorsport class, ABB is pushing the boundaries of e-mobility to contribute to a sustainable future. ABB operates in more than 100 countries with about 147,000 employees. [www.abb.com](http://www.abb.com)



**Caption:** Coutts & Co, the international private banking arm of Natwest Group, is using variable speed drive technology from ABB in the air conditioning system, saving some £70,000 worth of energy per year.

—  
**For more information please contact:**

**Layla Hewitt**  
**Marketing Communications**  
Phone: 01925 741517  
Email: [layla.hewitt@gb.abb.com](mailto:layla.hewitt@gb.abb.com)

**ABB Ltd.**  
Daresbury Park  
Daresbury  
Warrington WA4 4BT

**Emma Jenkinson**  
**Armitage Communications**  
Phone 020 8667 2218  
Email: [emma.jenkinson@armitage-comms.co.uk](mailto:emma.jenkinson@armitage-comms.co.uk)