ENGINEERING



Case story

Compact and high performing VLT® AQUA Drives for Northumbrian Water

The first of Danfoss' new generation, high efficiency, high power FC series drives to be sold have been supplied to Northumbrian Water's Lumley Water Pumping Station in the North East of England.

Danfoss secured the order for two of 200 kW VLT® AQUA versions against severe competition. The drives were ordered by Labtec (Services) Ltd who have a framework agreement with Northumbrian Water for the design and supply of motor control centres and low voltage assemblies.

Labtec were contracted to manufacture the MCC for Lumley Water Pumping Station and during the design phase of the contract ran into space limitation problems. The smaller footprint of the VLT® Aqua drive compared to other drive manufacturers was the ideal solution for this application

Labtec requested prices for drives suitable to power two 185 kW pumps and explained that they already had quotations from others for the drives but their drives would not fit into the allocated MCC space. This was creating a problem to



the extent of demanding relocation of the drives to an MCC located elsewhere on the plant, with severe cost implications. Initially, Colin Corner, Technical Director





of Labtec was sceptical. "We thought that the 1900 mm height available within the MCC was insufficient for drives of this power but the compact dimensions of the VLT® AQUA Drive meant that even with air space requirements above and below the drives, they would fit comfortably into the enclosures with room to spare.

Two drives were ordered as duty / standby units, delivery from the Danfoss factory was prompt and the drives are now installed and have been fully commissioned."

Since this order was taken, at the request of Northumbrian Water, Danfoss has carried out a further drives seminar at a local cricket ground, introducing the drives to Northumbrian Water's contractors, consultants and framework suppliers. As a consequence, orders have also been placed for 150% torque rated, positive displacement pump drives where the performance of the drives rather than their compactness was a critical consideration and Danfoss drives are under consideration for further projects at this and other Northumbrian Water plants.



3 remaining 3.3 kV pumps under consideration for frequency converter control



End user	Northumbrian Water Company
Motor size	185 kW
Delivery	2 x 200 kW VLT® AQUA Drive
Winning arguments	Compact dimensions. Competitor drives could not fit in the MCC

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