

New pumping station to alleviate flooding problems in Hull

Spaans Babcock have been awarded a multimillion pound project to design, manufacture and install Archimedes screws in a new pumping station which when completed will be the largest of its type in the World.

The prestigious project has been awarded to Spaans by Black & Veatch who are the principle contractor for a major refurbishment of Yorkshire Water's Bransholme surface water pumping station.



A 3D impression of the workings of the pumping station

The company are to install eight screw pumps in the new pumping station, 2 duty screws 2.1 metres diameter and six Storm Water screws each of which are 3.75 metres diameter, are over 20 metres in length and weigh more than 55 tonnes each.

The storm water screws will each have 560 kW main drive motors and have a capacity of close to 4,000 l/s each, hence each of the six large screws can lift 4 tonnes or 880 gallons per second. In more simple terms the pumping station could fill an Olympic sized swimming pool every two minutes!

Spaans Babcock are the only Screw pump manufacturer with their own UK based project management and service network. The company who operate out of their centrally located base in Heywood are on framework agreements or have nominated supplier status for many of the UK Water companies and have been installing and maintaining Archimedes screw pumps for them and The Environment agency for around 50 years.

Archimedes screws are ideal for this application as the large flights and clearances allow the screws to handle the debris often found in storm water without blocking. The other significant advantage is that the pumps can be run dry, this means they can be tested periodically without flow to give confidence that when they are required to run in anger they will do so. Spaans are installing monitoring systems which will analyse the equipment under both loaded and no-load conditions.



A similar sized unit leaving Spaans factory for a pumping station in Paris

Yorkshire Water selected screw pumps due to their capability pumping larger volumes of water very efficiently and just as importantly due to their robustness and long term reliability. Further information on the scheme and why screw pumps were selected is available on Yorkshire Water's website www.yorkshirewater.com

Spaans Director Mark Brown who has been involved in the project from the development phase which commenced more than four years ago states "We are delighted to be working with both Black & Veatch and Yorkshire Water in delivering this prestigious project which will help to protect the Bransholme and Kingswood areas from flooding at time of heavy rainfall".



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