

Spaans Babcock secures unique Screw Pump / Generator project

Spaans Babcock has been awarded a prestigious project to supply and install four huge Archimedes screw pump / generators by JN Bentley who is the civil contractor on the scheme. The project forms part of a multi-million-pound upgrade of the Tees Barrage white water course to make it one of the best in the world.

The improvements involve re-designing the main course, building a second shorter course and installing the Screws to create guaranteed conditions for canoeists, rafters and other white water sports activities.

Steve Garcia, Project Manager from British Waterways, responsible for the upgrade, said: “Once completed the new upgraded course will provide the UK’s first fully sustainable white water course.”

The course has been confirmed as a pre games training camp for Olympic competitors, the upgrade will enable the site to bring some of the biggest water sports events to the Tees both before and after London’s 2012 Games.

Spaans Babcock Sales Director Mark Brown has been working on the scheme from the concept stages for around 4 years. He advises that the equipment which they are to install comprises four 3.1 metre diameter 13 m long Archimedean screw pump/generators each of which weighs over 30 tonnes.

With all four screws running they will pump enough water to fill an Olympic size swimming pool in less than three minutes. When conditions permit the environmentally-friendly screws will also use excess river water to generate in excess of 130 kW each, making the course sustainable in energy terms.



Artist’s impression of the completed upgraded course

The company has been supplying, installing and maintaining Archimedes screws in the UK for more than 40 years. With the introduction of the technology to generate electricity a whole new market has developed, a number of systems have already been installed and numerous other projects are either in manufacture or close to finalisation.

The technology is now being utilised on numerous River Weirs and old Mill sites, the fish friendly design helping with Environment Agency approval.

The Teesside project however is unique in that it will be the only installation in the world where the Archimedes screws are used as both pumps & generators.