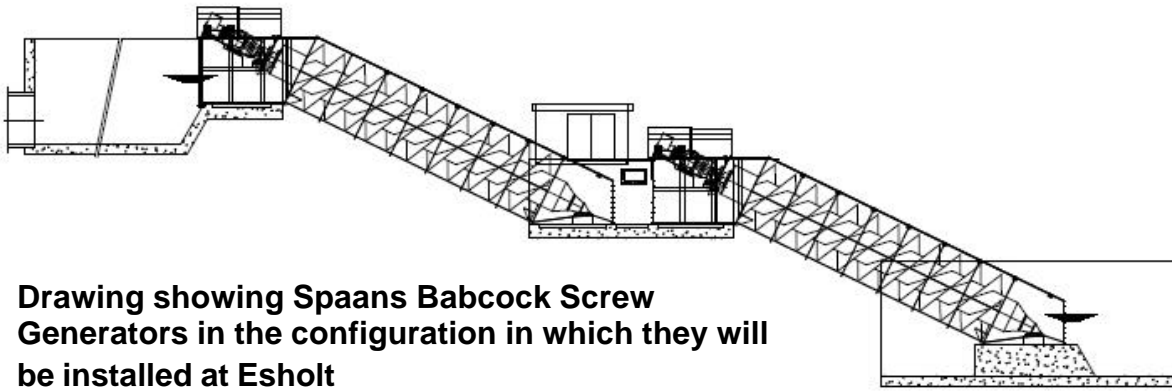


Screw Generators supplement Yorkshire Electricity supply

In the first project of its type in the UK and almost certainly one of the largest such projects in the World, Yorkshire Water is to utilise Spaans Babcock "Screw Generators" to generate electricity from the discharge flows from its Esholt Sewage Treatment plant, the electricity generated will be transferred back into the mains grid.

The equipment to be supplied will comprise of two 2.6 metre diameter Screw Generators, each being a Compact style screw and weighing more than 20 tonnes.

The generators are to be installed in series, with 2678 l/s flowing sequentially through the two screws over a total fall of around 10 metres, approximately 180 kW will be generated (90 kW per screw generator).



Drawing showing Spaans Babcock Screw Generators in the configuration in which they will be installed at Esholt

Screw generators can be utilised anywhere where suitable flows and heads exist, other potential uses include:-

- Rivers
- Cooling water outlets from power stations
- Industrial process water (for example paper or steel mills)

The large openings in the flights mean that where screw generators are used in applications in which fish could be present this does not present a problem as they are fish friendly. Indeed screw pumps which are effectively screw generators in reverse have been used as fish ladders.

The Screw generators offer all the usual benefits associated with screw pumps including:-

- Low maintenance
- No pre-screening required
- Flat efficiency curve
- Simple control
- Non-blocking
- No cleaning required

In the modern climate where alternative “green” energy sources are very much in the spotlight the screw generator offers a simple , reliable and proven means of harnessing the earths natural resources.

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