

Rampion Offshore Windfarm, Newhaven

Driving of steel tubes and precast piles for a port and windfarm.



AARSLEFF

Contractor Raymond Brown Construction awarded Aarsleff Ground Engineering the foundations contract to supply, design and install the driven precast and steel tube piling for a new 60,000 litre fuel tank base in Newhaven Port, East Sussex. Aarsleff successfully secured a further contract by MCS Group Ltd for the supply, design and installation of driven precast piling for the onshore operations and maintenance facility adjacent to the 400MW Rampion offshore wind farm.

Once operational, the wind farm will have the capacity to generate 400MW of electricity, enough to supply almost 347,000 homes a year - equivalent to around half the homes in Sussex. Situated 13km off the Sussex coast at its nearest point, the 72km² final wind farm will provide 116 vestas turbines turning out 3.45 MW of power apiece, each measuring around 140m high to tip from sea level. 250-300 jobs will be created over the 3-year construction period, including 65 full-time permanent jobs at the operations base in Newhaven Port, once the wind farm is fully operational.

Aarsleff's works for the fuel tank base and for the Davit Cranes commenced on the 3rd April 2017 and were completed end of May. Aarsleff carried out dynamic proof load tests to prove Design Verification Load and vibration monitoring for the duration of the contract.

Aarsleff installed 250mm square Centrum precast concrete piles of 26m length to support the new fuel tank base with its Banut 17 rig fitted with a 5 hammer and 8no thick walled driven steel tube piles of outer diameter 508mm, 20mm wall thickness of 40m length, for the 2no Davit Crane bases, installed with a 125t operated crawler crane with 30m of boom. The Davit Cranes are being employed because of the poor ground conditions and to avoid a key wall requiring Aarsleff to work from a clear distance 25m back.

Scope of Works

8 No. Steel Tube
146 No. Driven Precast
Piling

Client
E-ON

Contractor

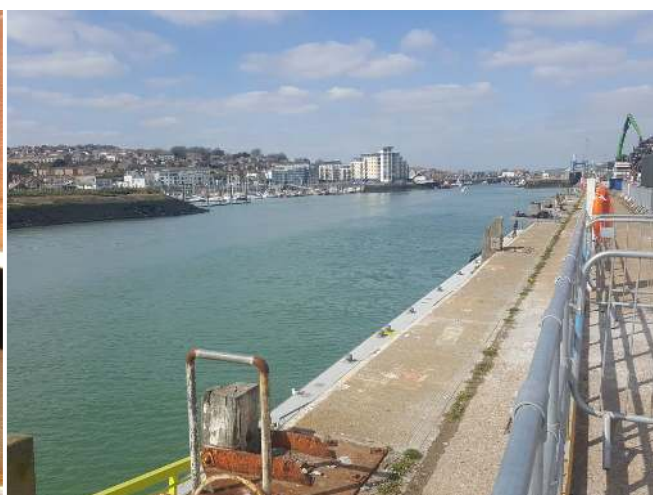
Raymond Brown
Construction MCS Group
Ltd

Equipment

Banut 17
Junttan PM20

Construction period

3rd April 2017 - 26th May
2017



As part of its work for MCS Group Ltd, Aarsleff again carried out dynamic testing and vibration monitoring during the installation of 146no 300mm driven precast concrete piles of 32m length for the Operations and Maintenance (O&M) facility with its Junttan PM20 rig. This commenced onsite early April for one month. The temporary pontoon at East Quay will facilitate the use of crew transfer vessels throughout the construction period of the wind farm. The completed O&M facility will include a control room, office, warehouse and quayside infrastructure and would be used by a team dedicated to operating and maintaining the wind farm for the lifetime of the project.

Senior estimator Ashley Carter said: "The Rampion Offshore Wind Farm project is another great addition to our growing portfolio of wind farm projects and is testimony to the company's technical competence and knowledge of the renewable energy sectors. To be awarded two contracts by different clients for the same project is a huge acknowledgement in our driven steel tube and concrete piling capabilities".

Aarsleff Ground Engineering Ltd, is the UK trading arm of Danish contracting giant Per Aarsleff A/S, and is one of the UK's leading piling and geotechnical design and installation specialist contractors; actively promoting early consultation to ensure each scheme can be Value Engineered to give clients the best service, quality design, safety and value. Aarsleff's strategy and philosophy of investment into the future has resulted in its wholly owned subsidiary Centrum Pile Ltd having the most advanced precast pile production facilities in the UK, producing segmentally jointed precast concrete piles to BS En12794 to Class 1A.

Contact

Aarsleff Ground Engineering
info@arsleff.co.uk | Tel 01636 611140