

**Project:**

East Anglia ONE

**Location:**

British North Sea (southern sector)

**Project completed:**

2019

**Owner/s:**

Scottish Power Renewables (Iberdrola) / Vattenfall

**Applicator/Contractor:**

FoundOcean

**Designer/Architect/Specifier:**

Rambøll

**General Contractor:**

Van Oord Offshore Wind Projects BV

**Market sector:**

Offshore Wind Energy

**Products used & amounts:**

MasterFlow 9800  
14,600 tons

## East Anglia ONE

MasterFlow 9800 for a 714 MW offshore windfarm



Our reference in the British North Sea: East Anglia ONE

### The background

East Anglia ONE is one of the largest windfarms in the world located in the North Sea approximately 50 kilometers from the coast of Suffolk.

With a capacity of 714 MW, renewable energy for nearly 630,000 British homes is supplied and since mid-2020 the array is fully commissioned.

This challenging project consists of the installation of 102 - 7MW Siemens Gamesa wind turbines on 3-legged jacket foundations. For the structural connection our grouting material MasterFlow 9800 was selected

### The challenge

The Master Builders Solutions team had to produce and deliver MasterFlow 9800 in bulk batches of 25Te to meet a demanding project installation schedule defined by peak demand fluctuations.

Operating a fleet of approximately 150 silos, the Master Builders Solutions team had to respond to wildly fluctuating demand cycles as the offshore project team took advantage of preferable operating conditions. The complete grout supply chain was responsively adjusted from inbound raw material procurement through production scheduling and outbound logistics concepts to accommodate the positive spikes.

Supply chain concepts including consolidated over water approaches via inland barges and also some reactive road transportation created a mix of economic optimisation and reactive supply.

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# East Anglia ONE

## MasterFlow 9800 for a 714 MW offshore windfarm



Our reference in the British North Sea: East Anglia ONE  
sources © Van Oord Offshore Wind BV

### Our solution

The Master Builders Solutions team devised a robust logistics solution to optimize the supply chain between its German production plant and the port of loading in Vlissingen that included consolidation of bulk silos and use of inland waterways. A large fleet of specialized silos was deployed, maintained, and traced by the Master Builders Solutions team to deliver MasterFlow 9800 with the certainty that comes with Master Builders Solutions' factory production control QC measures and unparalleled track record.

The product itself was mixed and pumped in bulk using a recirculating jet mixer offshore ensuring quantity and quality whilst keeping pace with a well executed campaign.

### The customer's benefit

- Bulk supply eliminated ~10,000 crane lifts when compared with big bags (financial and safety benefits)
- Zero late deliveries (risk profile benefit)
- Adaptable supply chain options to accommodate fluctuating demand
- Product performance – pot life and workability designed for offshore use
- Product performance – consistent strength gain behavior
- All batches tracked and traced from raw materials to foundations

### Projects facts at a glance

- Number of turbines 102 x WTG E19 Siemens Gamesa
- Windfarm total capacity 714 MW
- Turbine Hub Height: 90 m
- Construction period April 2018 – June 2020
- Area of the windfarm: 162.82 km<sup>2</sup>
- Foundation type: Grounded Jacket (piled)
- Typical water depths: 30.5 m
- MasterFlow 9800: 14,600 tons

### Master Builders Solutions by MBCC Group

The Master Builders Solutions brand expresses MBCC Group's expertise in providing customized chemical solutions for new construction, maintenance, repair, and restoration of structures.

Master Builders Solutions is built on the experience gained from more than a century in the construction industry. At the core of the Master Builders Solutions brand is the combined know-how and experience of a global community of construction experts, who connect with you to solve all of your construction challenges.

Further information is available at:  
[www.master-builders-solutions.com](http://www.master-builders-solutions.com)