



Key achievements

- **Effective collaboration with client to meet demanding production schedules**
- **Efficient deployment of several engineers to cover a wide scope of piling works**

Application
Piling

Technique
Setting Out

Market
Buildings
Infrastructure

Client
BKJV
SeAH Wind

Instrumentation
Robotic Total Station

Keller companies
Keller Foundations
GEO-Instruments

- **The Project**

Bauer and Keller joint venture (BKJV) are installing piles for a massive new factory that will manufacture bases for offshore wind turbines. The bases, known as monopiles, are large steel structures that will form part of the foundation for wind turbines to be installed in North Sea wind farms. The completed factory, owned by SeAH Wind, will be the largest of its kind in the world and is expected to produce more than 100 monopiles each year.

- **The Challenge**

BKJV are to install around 1,500 bored piles and approximately 5,500 CFA piles across the 36-hectare site. The piles are installed to designed depths between 28 and 35 metres below ground level. At peak there have been up to 15 piling rigs running concurrently. GEO-Instruments worked independently for BKJV, supplying setting-out services and as-built reporting. The project required a large volume of data to be collected and processed quickly to keep the site programme moving.

- **The Solution**

GEO-Instruments Site Engineers coordinated the eight setting-out engineers in teams, working closely with BKJV to manage the process and issue as-built reports as efficiently as possible. The Site Engineering team used Leica iCON robotic total stations. Having access to these specialised tools makes engineering work easier, faster and more efficient, making them ideally suited to working with the construction of bearing piles.