



# Sengenthal

## Retrofitted atlas pile foundations, grinding plant foundations

### Data and facts

|           |                                                            |
|-----------|------------------------------------------------------------|
| Company   | PORR Spezialtiefbau GmbH, PORR Spezialtiefbau Planung GmbH |
| Type      | Retrofitting foundations                                   |
| Runtime   | 03.2025 - 04.2025                                          |
| Principal | Max Bögl                                                   |

[Project report online](#)

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## Retrofitted pile foundation for a grinding plant foundation in Sengenthal

High demands on load-bearing capacity and precision

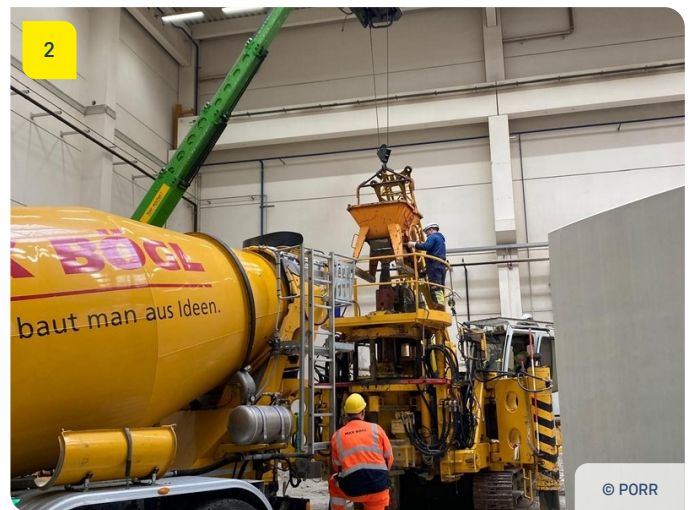
At the Max Bögl precast plant in Sengenthal, the surfaces of solid concrete components – such as 40-tonne concrete rings for wind turbines – are machined. Consequently, the requirements for the foundation method for the machine base of a new grinding plant were correspondingly high. In order to safely transfer the dynamic machine loads into the load-bearing subsoil and, furthermore, to prevent vibration transmission as well as differential settlement and deformation beneath the plant area, the plant was decoupled from the base slab and deep-founded using full-displacement piles.

### Challenging work under a low hall roof

The decision to use Atlas screw piles was based on the positive experience gained from a comparable previous project in Emden. Thanks to the high skin friction combined with the compaction of the surrounding soil, the system offers excellent load-settlement behaviour. Furthermore, the method enables low-noise and vibration-free installation without the need for soil excavation.

The ground consisted of fill, gravel, silt and clay, followed by load-bearing, medium-density sands at a depth of around 24 metres. Added to this were an extremely high water table and a low hall height of just 12 metres. The difficult on-site conditions therefore required particular care during pile design and construction. Consequently, the drill pipes were driven in several stages and the reinforcement cages were also driven into place on several occasions.

## Impressions



## Image notes

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Für die Nachgründung eines Maschinenfundaments stellte der PORR Spezialtiefbau Oldenburg in einer bestehenden Halle 25 Vollverdrängungsbohrpfähle System Atlas unter begrenzter Arbeitshöhe her.

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Die Entscheidung für Atlasschraubpfähle basierte auf den positiven Erfahrungen aus einem vergleichbaren Vorgängerprojekt in Emden.

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Do you have questions about the project or would you like to learn more? Feel free to contact us for further information.

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