

Case Study

Tecwill uses Mixer from BHS-Sonthofen for major Infrastructure Project

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Mixing concrete for more than 1100 windmills of Europe’s biggest wind farm is no small task. Which is why Tecwill Oy, a Finnish expert for concrete batching plants, puts his trust in a twin-shaft batch mixer from BHS-Sonthofen. The mixer produces four cubic meters of fiber concrete per batch and allows for casting up to three windmill bases per day. Tecwill and his customer particularly praise the mixer for its reliability and the efficiency of the time- and cost-saving mixing principle.



To meet the requirements of this project, Tecwill built a mobile concrete batching plant with a twin-shaft batch mixer at its heart. (Pictures: ©BSH Sonthofen)

In the North of Sweden, Ruskon Betony Oy is involved in building one of the biggest wind farms in the world: The first building phase includes 176 windmills, with 440 more windmills to follow. In total, the Markbygden Wind Farm will consist of more than 1100 windmills which produce up to 4000 Megawatt of green energy. The bases of the windmills consist of about 600 cubic meters of fiber concrete each.To ensure the concrete is of high quality and readily available

when needed, Ruskon tasked Finnish concrete plant expert Tecwill with constructing a mobile plant. To meet the requirements on site, the plant consists of five aggregate bins, four cement silos, a fiber dosing module and turbo-heating container including a buffer tank for cold water. At the heart of the batching plant is the twin-shaft batch mixer of type DKXS 4.0 from BHS-Sonthofen with an output of four cubic meters compacted concrete per batch.

A reliable Partner for custom-sized Mixers



The twin-shaft batch mixer from BHS-Sonthofen is known for its reliability, short mixing times and high homogeneity.

For Tecwill, it is important that the mixer fulfills the following requirements: cost and energy efficiency, full reliability, short mixing times combined with a very

good homogeneity, and: the mixer has to fit into the plant. Especially when the client needs a mobile plant, the actual size of the mixer plays a crucial role.Mika Silvennoinen, Area Sales Manager at Tecwill, explains, why this is one of the many reasons the Finnish company prefers mixers from BHS: “Next to the option of choosing between different customizations, we can decide how large the mixer shall be – often the standard size already fits well into our plants. When it does not, we ask for a custom-made model. Either way, the external dimensions of the mixers are relatively small compared to a large batch size. Another plus is the low mixing time – even when processing special mixtures.”

Quick Mixing of demanding Concrete Formula



On a regular day, the mixing plant produces fiber concrete for two windmill bases. (Picture: © Peikko)

For one batch of the fiber concrete used to cast the base of the windmills, the mixer takes about six minutes. Manfred Immler, Area Sales Manager for West Europe at BHS explains the secret behind the advantages of this type of mixer: “Our company has been building twin-shaft mixers for more than 130 years – and

our engineers have continuously improved the technology. Our experience and know-how lead to a lot of designing and engineering details, which make the difference in the end. The DKX is the number one choice for demanding large-scale projects.” This is not the first cooperation between Tecwill and BHS. Since thirty years, the Finnish specialist has been using twin-shaft batch mixers from Sonthofen. Especially in large projects, where maintenance-free appliances and high-quality output are of utmost importance to guarantee seamless processes, BHS is the provider of choice. The reputation of the long-established company has even convinced Tecwill’s clients. “Many of the companies we work with specifically ask for a twin-shaft batch mixer made by BHS-Sonthofen,” explains Mika Silvennoinen. “Though it might cost a bit more than other brands, its reliability and efficiency in terms of time and energy saving pay off quickly. Our clients are always very happy with the mixer.”



With more than 1100 windmills in total,
Markbygden Wind Farm will produce
4000 Megawatt of green energy.
(Picture: © Enercon GmbH)

The mixer used for building the Markbygden wind farm is able to produce about 120 cubic meters of regular concrete or 90 cubic meters of the more demanding fiber concrete per hour. On a regular day with two work shifts of eight hours, the mixer produces material for the bases of two windmills – allowing for quick progress in this impressive project. “Theoretically, if run 24 hours a day, the plant could even mix concrete for up to three windmill bases – for the mixer this would

not be a problem,” Mika Silvennoinen concludes.