

Expansion of Biogas Plant Strengthens Regional Energy Supply

Formwork solution for new fermenter tank with the TITAN Aluminium Megashore system



“The safe access to the working level inside the tower and the ease of handling of the ISCHEBECK passage decks really won us over.”

Oliver Ruhmland, Foreman at Wolf System GmbH

The biogas plant operated by Bioenergie Stockheim GbR has been making an important contribution to the regional energy supply in the Unterallgäu district for many years. Biogas is produced from cattle slurry, manure and renewable raw materials; it is then converted into electricity and heat in an environmentally friendly manner in combined heat and power plants. With the expansion, which was approved in 2024, the plant will increase its capacity while optimising the utilisation of the substrates used.

The challenge

As part of the expansion, a new fermenter tank with an internal diameter of 24 m and a height of 12 m will be constructed. To stabilise the solid ceiling, an additional reinforced concrete support was erected in the centre. The exceptionally high ceiling thickness was particularly challenging; it measures 44 cm in the centre and tapers to 30 cm at the edge. These dimensions required an extremely stable formwork solution as well as safe and precise assembly logistics at a height of around 10 m.

The solution

For the demanding formwork, the contracted construction company Wolf System GmbH

relies on the TITAN Aluminium Megashore System. The system impresses with its high load-bearing capacity and ease of use – ideal for the construction of solid ceilings. The TITAN 160 H beam and the TITAN 120 decking beam are used as supports, absorbing loads economically thanks to their low dead weight. A continuous walkway will be erected at a height of approximately 10.30 m to serve as a safe assembly platform. It will be possible to climb up safely and quickly using passage decks with integrated aluminium telescopic ladders. During the project planning stage, the application engineers at FRIEDR. ISCHEBECK GmbH used the smartTITAN software. This also allows building regulations-compliant verification to be provided for the TITAN Aluminium Megashore System outside the scope of type approval.

The next expansion is already in preparation: another fermenter tank is set to further strengthen the supply of climate-friendly energy in the Unterallgäu district. This is another example of the TITAN aluminium slab forming system coming into its own – and a further step towards greater security of supply.

Project:

Expansion of a biogas plant through the construction of a new fermenter tank in Stockheim, Germany

Construction period:

June 2025 – November 2025

Client:

Bioenergie Stockheim GbR

Building contractor:

Wolf System GmbH

Planning tool:

smartTITAN

Products used:

- TITAN Aluminium Megashore system
- TITAN 160 H aluminium formwork beams
- TITAN 120 aluminium formwork beams
- Passage decks with aluminium telescopic ladders



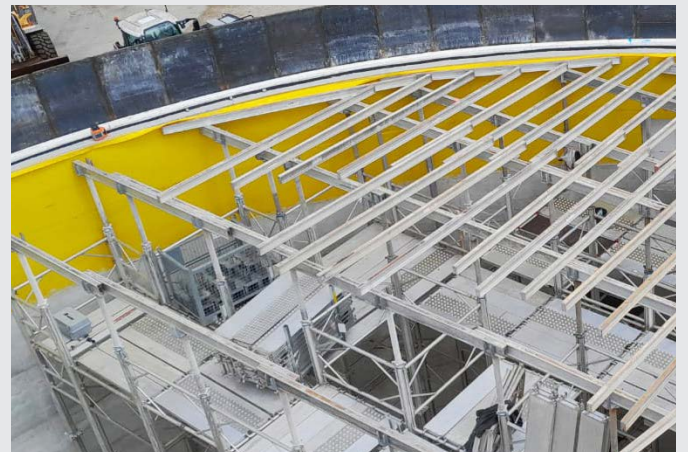
A secure assembly platform was erected at a height of around 10 m using aluminium scaffolding and decking planks



The TITAN Aluminium Megashore system is ideal for thick slabs due to its high load-bearing capacity



Passage decks with aluminium telescopic ladders enable quick and safe ascent



TITAN 160 H and TITAN 120 aluminium formwork beams were used to form the solid ceiling

Want to learn more about our TITAN formwork systems?

We would be happy to advise you about your project. Simply get in touch with us. We look forward to hearing from you.