

Jobreport

# High performance concretes for advanced construction concepts



**LIEBHERR**



### Situation

Max Bögl was founded in 1929 and is an international operating construction company with around 6,500 employees at more than 35 locations worldwide. The group based in Sengenthal is one of the largest construction, technology and service providing companies in the German construction industry. The scope of activities of the company includes all areas and levels of difficulty of modern construction.

At its location in Bachhausen, Max Bögl operates one of the world's most modern production plants for the industrialized production of innovative residential modules for serial multi-storey housing construction.

### Task

To produce the modules, the responsible concrete experts from Max Bögl demanded the most advanced solution for the economical mixing of high-performance concretes according to the current state of the art. The new mixing plant should have the ability of a flexible expansion in order to meet future challenges on the site, too. Additionally it is also important that the plant can be perfectly integrated into the already existing two-line prefabricated production plant.

### Solution

The new Betomat 5 includes a RIV 2.5-D ring-pan mixer with variable and independent adjustable speeds of the main mixer and

the agitators. This unique design allows the mixing of high-performance concretes within the shortest possible period of time.

The aggregates are delivered by truck and can be unloaded directly into the ground-leveled and covered charging hopper. A galvanized bucket elevator and a distribution belt feed the material into the eight silo chambers. Overall 470 m<sup>3</sup> of aggregates with a particle size of up to 32 mm can be stored. The three silo chambers, which can be completely emptied via inclined sheets, contribute to increase the flexibility of the production. The plant also has four binder agent silos with a capacity of 120 t each, whereby two of these silos are divided.

For the planned future expansion of the plant, the space and connections to the balances are already provided for a second RIV 2.5-D. In the future, both mixers can be emptied into the two bucket elevators that connect the Betomat to the two-line production at the Bachhausen location.

Anton Gloßner, who is responsible for mixing plant technology at Max Bögl, confirms the outstanding features of the new Liebherr mixing system: "With the Liebherr RIV 2.5-D, we are technically up to date and can easily carry out the current tasks. Furthermore, this mixing system has appropriate reserves to meet future requirements. This is especially true for special applications such as self-compacting or high-strength concretes."

Technical data	Betomat 5 with tower silo
Output capacity	up to 120 m <sup>3</sup> /h (dependant on recipe)
Storage volume for aggregates	470 m <sup>3</sup> (8 chambers)
Diameter aggregate storage	10,5 m
Storage volume for cement	2 x 120 t, 4 x 60 t
Number of lanes	2
Mixing system 1	Liebherr ring-pan mixer RIV 2.5-D
Mixing system 2	prepared for a second Liebherr ring-pan mixer RIV 2.5-D
Total high of tower silo	approx. 23 m

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