

ICR article draft

Flawless mixing

by **Liebherr-Mischtechnik GmbH, Germany**

Kaspar Röcklein KG has been active in the German construction materials market for over 65 years, manufacturing concrete products such as prefabricated components and ready-mix concrete. It produces prefabricated parts and concrete goods at its plant in Ebing, Bavaria, Germany, which has also recently seen the commissioning of a new Liebherr Betomat IV-685 mixing tower.

Equipped with 10 silo chambers, the Betomat IV-685 has a capacity of 685m³ of gravel. The mixing tower is loaded with material from an onsite gravel quarry via an inclined conveyor belt. Approximately 600t of binding material are stored in the plant's five silos. Two of the five silos are configured as a double-chamber version, providing a stockpile of seven different binding materials.

The new mixing plant is equipped with three Liebherr ring-pan mixers. Concrete is mixed for the production of roof slabs in the RIM 2.25 featuring mechanical agitator and two discharge outlets to the bucket conveyor and truck mixer. The RIM 1.5-D with mechanical double agitator produces the core concrete for paving stones, discharging the concrete into the bucket conveyor. A third mixer, the RIH 0.5 with hydraulic agitator, is employed for the production of face concrete for paving stones, also discharged into the bucket conveyor.

All three ring-pan mixers are equipped with a pre-hopper and separate cement and water weighers to maximise flexibility. Running of the plant is regulated via the state-of-the-art Litronic-MPS III mixing plant control. Additional local controls allow a quick and simple dispatch of the concrete into the production halls.



Liebherr Betomat IV-685 mixing tower with three mixing systems supplies the Röcklein prefabrication plant with concrete

Environmentally-friendly operation

Exhaust air filter systems reduce dust emissions and a recycling plant refreshes residual concrete, ensuring environmentally-friendly operations. With a production output of 12m³/h, the LRS 806 residual concrete recycling plant processes material from the mixing plant and truck mixer cleaning, as well as uncharged quantities of residual

concrete. The component parts of the processed material are washed out in a closed-material circuit. An additional hydrocyclone cleans the residual water of particulates and the processed water is then supplied back for production. Considerable savings can be made both in terms of materials and cost as a result of processing and reusing the water.

Long and flawless operation

The long lifecycle of the plant is guaranteed by premium-quality components, as well as almost complete galvanisation of the steel structure. The entire plant is insulated with plastic-coated sheet metal plating and is fitted with a heating to ensure flawless operation over the cold winter months.



Collecting concrete beneath the mixer systems via bucket conveyor