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New residual concrete recycling plants for Betopar in Portugal

Betopar is a leading company in Portugal that has been making a name for itself in the production and distribution of high-quality ready-mix concrete since 2006. With its production centres in Milharado and Lourel, Betopar is equipped with two state-of-the-art production plants and a robust fleet of truck mixers and concrete pumps. The production capacity and fleet enable Betopar to respond to projects not only in the Lisbon area, but also in other regions such as the south bank of the Tagus and the western region.

Betopar recently decided to modernise its plants and turned to Portalmex, the Portuguese sales partner of Bibko® Recycling Technologies GmbH. After several meetings and discussions between Bibko, Portalmex and Betopar, the customer decided in favour of two new Bibko residual concrete recycling plants.

ComTec 30

At the Lourel plant, the Bibko ComTec 30 system was installed together with a dosing buffer. Thanks to the 6.00 metre long hopper, an improved washing situation has been created for Betopar, where instead of two, up to six truck mixers can now wash out at the hopper at the same time. This avoids long waiting times for the truck mixers. The dosing buffer enables the surge emptying of the truck mixers. It collects all the residual concrete and washing water and conveys it continuously into the ComTec washout system.



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Thanks to the recessed installation of the ComTec (recycling capacity up to 30 m³/h), concrete pumps can also easily wash out the floor-level charging hopper without the need for a separate device. A 5.00 metre-long screw conveyor provides for optimal discharge of the washed-out material from the machine.

The system is equipped with a recycling water treatment system in which the residual concrete is fed into the machine in even doses via the dosing buffer after filling the truck mixer with recycling water. Larger solids (> 0.2 mm) are washed out and removed appropriately. The water with the fines < 0.2 mm flows via a recycling water outlet channel into an agitator tank equipped with two agitators.

Hydrocyclone

The agitators in the recycling water tank prevent the residual concrete from settling. By additionally equipping the agitators with a hydrocyclone, the residual water is treated with increased water density in order to maintain a permissible density level (for concrete production). A process takes place in the cyclone in which the coarse particles are removed and separated. The purified water then runs back into the agitator tank. This allows the density to be lowered and the particle size to be drastically reduced. The separation cut of such a cyclone is approx. 40 - 60 µm.

The residual water in the recycling water tank is completely fed back into the concrete mixing process to ensure a continuous cycle and keep the water balance constant. ■

FURTHER INFORMATION



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