

Brazilian pioneer in precast production relies on European expertise

Anhanguera Construção Industrializada is modernising its precast concrete plant with the European machinery and software manufacturer Progress Group, thereby expanding its product portfolio. With a new carousel plant featuring a medium degree of automation, the Brazilian precast concrete manufacturer now produces double walls in addition to precast slabs with in-situ topping. The market is responding with numerous orders – the new production lines are already operating at high capacity.

The precast industry in Brazil

Until recently, the situation on the labour market was relatively relaxed, but now there is a labour shortage in Brazil too. As a result, prefabrication in the plant is also gaining in importance. Industrialised design reduces construction times, rework and waste, and ensures greater control and efficiency from the design stage through to the completion of a construction project. Many multi-storey social housing blocks are currently being built in Brazil. Precast slabs with in-situ topping and prefabricated double walls are ideal products for this purpose. The latter is not yet widely used in Brazil, but is becoming increasingly significant as a thin prefabricated wall element. Anhanguera Construção Industrializada is playing

a pioneering role in this field and, following the initial modernisation of its precast floor slab production, has now also upgraded its facilities for the manufacture of double walls.

The mission of Anhanguera Construção Industrializada: Industrialisation of the construction sector

With over three decades of experience in the sector, Anhanguera Construção Industrializada has built up a strong reputation for the production and installation of precast concrete elements. The flexibility of the production line now enables them to offer a wider range of products and tailor these to the specific needs of their customers.

“Our mission is to invest in the industrialisation of the construction sector by providing high-quality floor slabs and structural solutions based on state-of-the-art technology and efficiency. This means construction projects can be completed faster, more safely and more affordably,” says the management.

Anhanguera has moved from its old production site to a completely new site with new infrastructure. The site has remained in the region – in Itupeva, north of São Paulo. In addition, an



Anhanguera Construção Industrializada has developed into one of Brazil's leading and most modern precast manufacturers – equipped with European machinery and state-of-the-art software.



Production of precast slabs with in-situ topping and double walls has been in full swing since the modernisation.

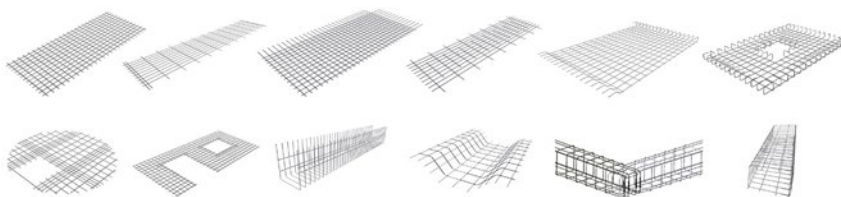


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With the new turning device, the precast plant near São Paulo can now also produce double walls with a fair-faced concrete surface.



The precast elements are manufactured and transported using software-controlled systems, some of which are fully automated – this saves time and money and makes production safer.



A building in which precast slabs with in-situ topping from the Brazilian pioneer have already been installed.

adjacent plot of land has already been purchased with a view to further expansion.

Modernisation for the future

Following the completion of the circulation plant for precast slabs with in-situ topping in 2024, Anhanguera Construção Industrializada has further consolidated its significant role in Brazil's precast industry and improved product quality. For example, automated handling of the drying chamber is a rarity in South America. The European machinery supplier Progress Group supplied, amongst other things, a new pallet cleaner, a plotter, and, in addition to a few stations that can still be operated manually, a lifting transfer table.



The plotter marks out the contours of the future concrete component on the pallet with precision.



After production, the double wall elements are erected using the tilting mechanism, removed by crane and transported to their intended installation location.

From the outset, these machines were equipped with the ebos^{yc}® software – also from Progress. In 2026, a further investment was made in expanding the plant with the aim of boosting double-wall production. With a new turning device, a second compaction unit, a tilting mechanism, additional

pallets and the automation of the existing concrete distributor, production is now in full swing. The concrete distributor is linked to the concrete mixing plant, and the quantities of concrete are ordered on demand using the ebos^{yc} software. This ensures that no concrete is wasted and that exactly the required amount is always discharged onto the pallet.

Currently, production can be carried out on over 40 pallets in record time, with minimal manual effort. The technologies used in the production facility not only increase process efficiency but also save energy: The software ensures precise production control, optimises production cycles and thereby ensures excellent utilisation of the individual machines within the circulation plant.

ebos^{yc} is an MES software solution for controlling, monitoring and analysing the entire circulation process. With features such as automatic pallet allocation and real-time visualisation, ebos^{yc} enhances flexibility, transparency and efficiency in production. Anhanguera Construção Industrializada benefits from optimised processes, reduced downtime, higher productivity and better utilisation of its systems through data-driven analysis and smart process optimisation. The freshly cast concrete elements are cured in a drying chamber in a compact space under controlled conditions of temperature, air humidity and time.

Progress with Progress Group

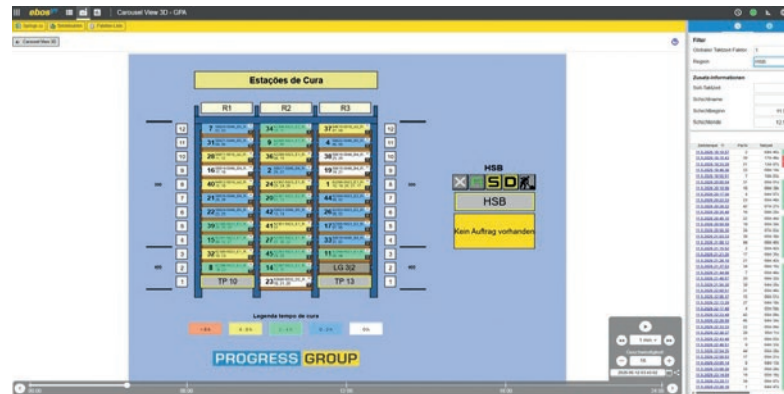
Anhanguera Construção Industrializada and Progress Group share the same values: Innovation, efficiency, quality and sustainability. The collaboration went absolutely smoothly and was very satisfactory for both parties. The key to the successful installation and commissioning was the precise and efficient planning of the plant in advance and the resulting uninterrupted production. "Production was able to continue for the most part even during the assembly – that was essential for us and was also greatly appreciated on our part," said the



A view inside the new plant of the Brazilian precast manufacturer – up to 1,200 m² of precast slabs with in-situ topping and double walls are produced here per shift.



Full transparency with the GPA (Graphical Performance Analyzer) in ebos^{rc} through 3D visualisation of the circulation plant.



Easy operation and high user-friendliness with ebos^{rc} to identify bottlenecks and monitor drying times in the drying chamber.

management. As Anhanguera Construção Industrializada is operating at full capacity with its production of precast slabs with in-situ topping, this was a key factor.

The high product quality offered by the group's machinery and software was decisive for the positive collaboration with Progress Group. With the installation of the plant in 2024, significantly fewer workers were required for the production of precast concrete elements, and output increased by 30 per cent. Thanks to the high quality and short delivery times, the company can now even compete successfully against cheaper suppliers in the region. With the current expansion, Anhanguera Construção Industrializada is now very well positioned for the future.



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