Progress Software Development GmbH, 39042 Brixen, Italy

Integrated software solutions for the production of lattice girder floors

Orion Beton is a Dutch precast concrete plant based in Enschede and currently employs around 50 people. By replacing and updating all software-based processes, Orion Beton has taken a major step in the automation of the production process. For the digital modernisation in their software sector, Progress Software Development GmbH, a company of the Progress Group, is the reliable partner. The successful cooperation with various machines and software solutions dates back to the year 2003.

The core business of Orion Beton is the production of lattice girder floors, which has been optimised in the fully automated circulation unit of the precast concrete plant. The ebos® and profit MES systems, developed by Progress Software Development, accompany all aspects of the production process in a consistent manner. These integrated and complete systems replace a variety of partial software solutions, enabling employees to carry out their entire work process in a single homogeneous and user-friendly system.

Our production stability was increased immensely by using ebos and thanks to the optimised pallet assignment, the production process runs much smoother," says a satisfied Managing Director Jan Rook.

The use of software solutions guarantees smooth processes

The e^{rp}bos[®] solution, which was specially developed for the precast concrete industry, functions as a higher-level ERP system and is used for planning and controlling all business and production processes. From sales, calculation, project management, production and assembly planning to logistics and materials management, all processes are managed by a central system.

The big challenge in implementing the modernisation was to install ebos and e^{rp}bos together, to replace the existing system and to have everything up and running within a few days. Progress Software Development achieved this through an intensive lead time as well as sufficiently qualified specialists on site during the go-live.

"The decision in favour of e^{rp}bos and thus in favour of Progress was made, among other things, because of the open structure of the database and the structural updates. The possibility of integrating ebos into e^{rp}bos played an important role, as did the fact that we have been familiar with the pleasant cooperation with Progress for almost 20 years," emphasises Jan Rook.



PRECAST CONCRETE ELEMENTS



Pallet assignment in ebos. With ebos it is possible to replace a large number of partial software solutions with a single, perfectly integrated system.



Production module in e^{rp}bos. The difference between e^{rp}bos and other ERP systems is that the entire Progress know-how, from mechanical engineering to the production of precast concrete elements and software development, has been combined in one solution.

A success story lasting over 40 years

Orion Beton was acquired by AGAR Holding in 1973. Only two years later, the company moved from Delden in the Netherlands to its current location in Enschede, where it also started producing the lattice girder floors. In the beginning, the company produced 50,000 m² per year, but over the years the production volume has increased considerably through various modifications. For example, a new hall including a circulation plant was built in 1986 for the production of floor slabs. This was extended in 2003 by an M-System mesh welding plant. In 2014 the VGA Versa lattice girder welding plant was installed, which is equipped with a fully automatic height adjustment during production. An additional bending machine for reinforcement bars enables the company to produce the reinforcement itself and to manufacture and weld cages. Recently another important component was integrated, the fully automatic stirrup bending machine for rein-



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The M-System mesh welding plant was developed for the most flexible production possible and thus fits very well into the overall concept.



The VGA Versa lattice girder welding machine produces just-in-time lattice girders in different heights for the carousel plant and is equipped with an automatic top wire diameter change.

forced steel from the EBA S-line. All these machines come from Progress Maschinen & Automation, also a company of the Progress Group company.

Orion Beton has two large production halls. The first one is used to produce the traditional lattice girder floors by means of a highly modernised carousel plant. In the second hall there is a more than 3 m-wide bed for the production of prestressed lattice girder floors and a second bed for the production of other products, such as unit floors or beam floors.

Advantage through a wide range of services

"A prerequisite for high performance with calculable accuracy are machines and software solutions, which on the one hand can be optimally integrated into our existing plant and on the other hand contribute to a targeted increase in efficiency," says Tonny Bunte, the project manager for e^{rp}bos in the company.

Orion Beton found the right partner for these high demands in the Progress Group. Reliability, experience as well as familiarity with the performance have been the decisive factors for this long-standing successful cooperation.

FURTHER INFORMATION



Orion Beton

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