

Echo Precast Engineering NV, 3530 Houthalen, Belgium

# Gamuda invests in new production line for pre-stressed concrete elements

The principles of quality, sustainability and efficient construction are central to Gamuda’s business. Consequently, the obvious next step for one of Malaysia’s leading infrastructure and land developers was to invest in modern technology for the manufacture of precast concrete elements. In 2016 a new precast concrete plant with production equipment from Ebawe Anlagentechnik and Progress Maschinen & Automation began operation near Kuala Lumpur. By opening this plant the company made the leap from traditional building methods to construction in pre-fabricated concrete sections, a method with a promising future. In the next step, Gamuda has now expanded the plant and has invested in a production line for pre-stressed concrete elements. The Belgian Echo Precast Engineering, one of the companies of the Progress Group, a leading machinery supplier for complete solutions in the precast concrete industry, delivered the full range of machinery and equipment with a Slipformer S-Liner® as the core of the new production line.

The concrete plant commissioned in 2016 was developed by Prilhofer Consulting for an annual output of 1 million square metres of solid walls and precast slabs with in-situ topping



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with a high degree of automation. Gamuda decided upon Ebawe Anlagentechnik and the Progress Maschinen & Automation division of the Progress Group as primary suppliers.

Ebawe supplied the equipment for the pallet circulation plant. Progress was responsible for the mesh and lattice girder weld-



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The possibility to produce 2 slabs at the same time with different widths (0,8 m and 1,20 m) stresses the flexibility of the Slipformer S-Liner.



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ing system, as well as all other reinforcement and mesh processing machines.

The expansion of the plant with the new production line for pre-stressed concrete elements was also developed by Prilhofer Consulting. The aim was to have a capacity of minimum 1400 m<sup>2</sup> pre-stressed concrete elements per day. In order to achieve this aim Echo has installed 4 production beds, each 150 m long and 2,40 m wide and the Echo Slipformer S-Liner.

### Slipformer S-Liner

The Slipformer S-Liner from Echo Precast Engineering is a solution for versatile, flexible production requirements. The machine cannot only be used for the production of hollow core slabs, but also for a complete range of other products, such as beams, lintels, foundation piles, gutters, as well as hollow core slabs with insulation or incorporated heating/cooling systems.

This versatility is made possible by the modular machine structure. Height differences in the same product series can be produced by quick, problem-free changing of the tube



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and mould set. Changing to a completely different product can be completed even more quickly by replacing the production-related module.

The specific construction of the Slipformer S-Liner and the use of dry concrete (zero-slump concrete) make it cost-efficient and easy to use and maintain. Each machine type is available for 1,2 m wide beds (4 ft) - 1,5 m wide beds or for 2,4 m (8 ft) wide beds. As mentioned before Gamuda has chosen the 2,4 m wide beds.

### Simultaneous production of 2 slabs with different widths

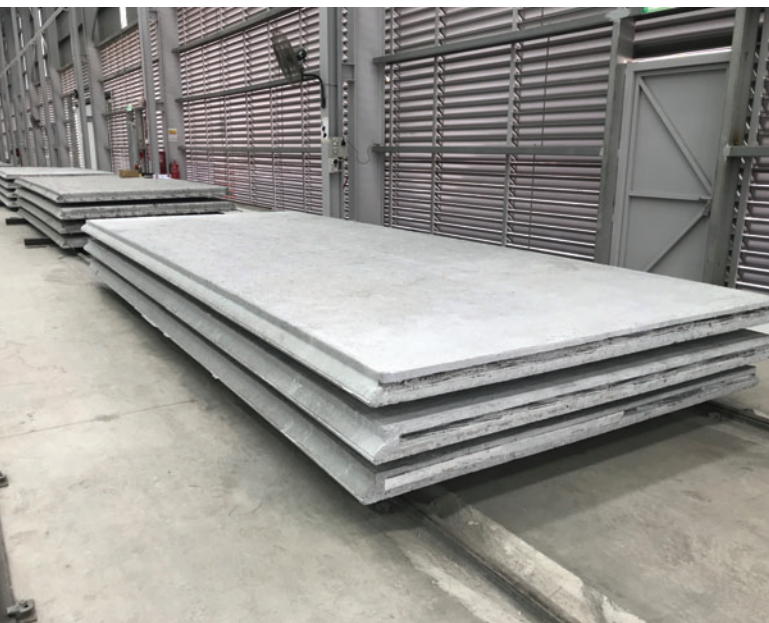
The company Gamuda has chosen the Slipformer technology because of its high flexibility. The possibility to produce 2 slabs at the same time with different widths (0,8 m and 1,20 m) stresses the flexibility of the Slipformer S-Liner and shows the latest development of Echo Precast Engineering. Gamuda can offer the pre-stressed concrete elements in thicknesses of 7 cm, 9 cm or 11 cm.

### New run-off carriage

Echo delivered a full range of equipment including new developments. A novelty is the run-off carriage with a load capacity of 30 t. This run-off carriage is used to transport the prefabricated concrete elements within the plant to the storage or to the embark point. The concrete elements are stacked horizontally on the loading platform of the carriage that runs on rails and moves in a longitudinal direction.

Further machines complete the production line: the wagon for the cutting tool, lifting equipment and a semi-automatic half portal concrete supply system with concrete bucket and a multi-functional trolley that is used for the preparation of the beds. The trolley has specialized rotary brushes to clean the production beds, to draw the wires and strands and it has a device for oiling the production beds.

Echo Precast Engineering accompanied the whole process of planning of the production site, installation and implementing the machinery. ■



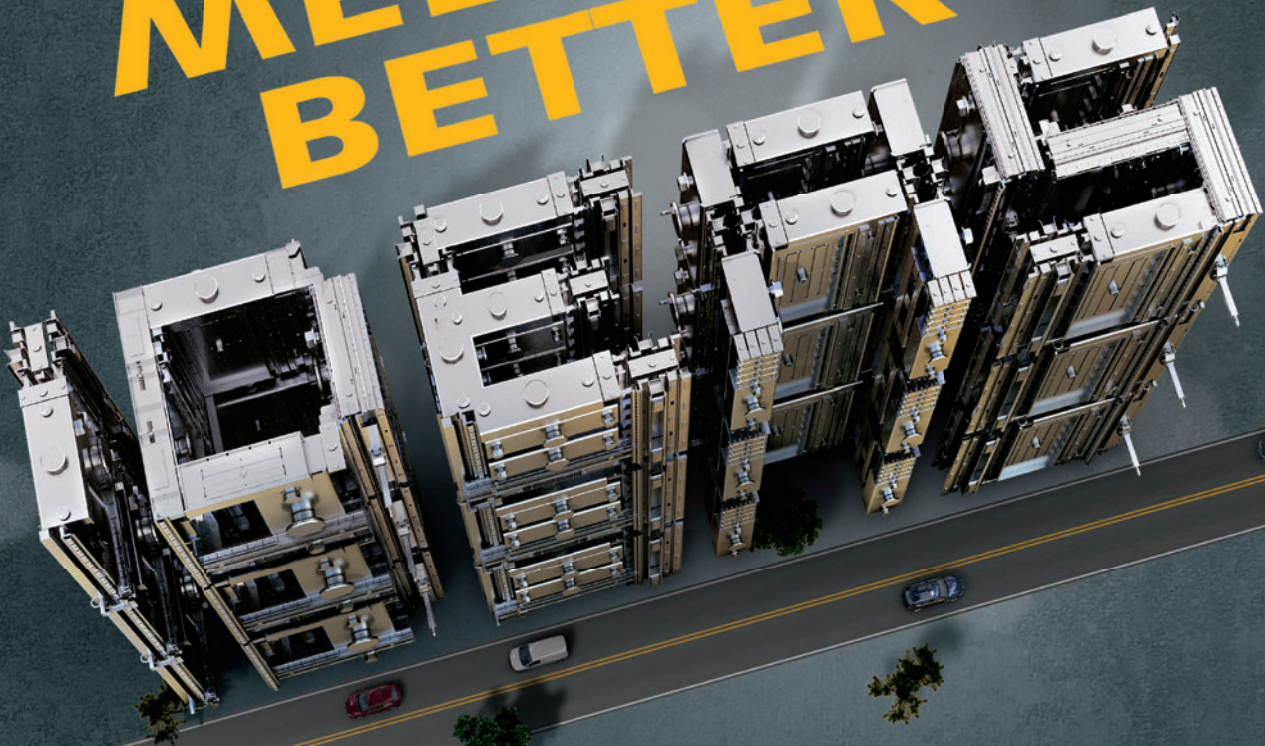
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The expansion of the plant with the new production line for pre-stressed concrete elements was also developed by Prilhofer Consulting

FURTHER INFORMATION



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