

German consortium constructs precast components factory in Thailand

One of the largest precast concrete component factories in the world has been constructed with the aid of Germany production technology in Bangkok, Thailand. The German consortium, comprising Weckenmann Anlagentechnik, Vollert Anlagenbau and Unitechnik, have created a team to realise this large-scale project.

The new production plant will enable exact logistics of materials as well as efficient processing of 830 t of raw materials and manufactured articles daily. In addition, concrete wall panels to the approximately amount of 110,000 sq m will be manufactured per month.

The new plant will run at high capacity without sacrificing the level of product quality. It will also allow the manufacturing of building components with alternating geometries.

A total of 90 formwork palettes measuring 3.5 by 13.5 m were delivered by Weckenmann Anlagentechnik to the new plant. With the aid of a special large format plotter, the layout of the

wall slabs can be drawn directly on the formwork palette on a 1:1 scale.

This guarantees that various built-in parts and recesses for doors and windows are located in the correct places. The shaping of contour for the elements to be produced according to the drawn geometry parts is carried out by a modular formwork system with box sections. The box sections are secured to the formwork palettes with strong permanent magnets which hold the formwork profile in place during the complete production process. The filling of the formwork tables with fresh concrete is carried out by a precast concrete spreader. The surfaces of the precast concrete components are smoothed automatically and all ready to paint and decorate.

The flow of material within the plant will be carried out by a palette circulation system which transports the formwork palettes to the work station in a minute cycle.

Unitechnik's central master computer supplies the work stations with manufacturing data

and coordinates all the automatic processes in the production plant. The master computer monitors the storage period, oriented towards a building site, in the heated high bay racking. It also monitors the sequential removal of cured elements from stock.

Weckenmann Anlagentechnik GmbH & Co. KG is one of the leading suppliers of automation solutions in precast concrete manufacturing in the construction of automobiles and machinery. Vollert Anlagenbau is a specialist in system solutions for the automatic handling, transport and storage of heavy and large-scale parts, which focuses on the flow of materials for the construction industry and the metal producing and processing industry. Unitechnik Ciepli & Poppek AG has been one of the leading suppliers of industrial automation and information processing for over three years. Unitechnik solves complex tasks in control and communication systems for machines, plants and logistics systems.



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