

# Spillman FORUM

News about the precast/prestressed  
concrete industry

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## THE WORLD'S LARGEST HOUSING FACTORY CONSTRUCTED BY OUR GERMAN PARTNERS

The largest precast concrete component factory in the world has been constructed with the aid of German production technology in Bangkok, Thailand. Weckenmann, Vollert, and Unitechnik have created a team to bring this large-scale project to life. The project was designed by consultant Christian Prilhofer and his team. The growing demand for top quality residential homes in the Thai market can now be met with this new production facility.

The plant efficiently handles more than 900 tons of raw materials and finished precast elements on a daily basis, resulting in an overall daily capacity of ten complete houses. In addition, the plant also produces more than 1,000,000 square feet of precast concrete wall panels monthly. This plant is operating at this high capacity while maintaining the high level of quality required by the marketplace. From the early planning stages for the project, eight different types of homes were anticipated. As production levels increased from the initial start-up to full capacity, further architectural variations have been incorporated into the production system to allow for a broader range of styles for the vacation homes.

A total of 90 steel pallets measuring approximately 12 feet by 44 feet were manufactured and delivered by Wecken



man to the new plant. With the aid of a full scale Weckenmann plotter, the layout of each wall slab is directly drawn on each of the pallets. The full scale mapping of each piece directly onto the pallet insures that each of the cast-in elements and recesses for doors and windows are located in their required places. Contoured modular side rails are used to achieve the desired architectural features of each panel. These side rails are secured to the heavy-duty steel pallets by strong permanent magnets that hold the formwork sections in place during the complete production process. The filling of each pallet with fresh concrete is completed with the use of a Weckenmann concrete spreader. The back surface of each precast component is automatically smoothed by means of a specially designed and manufactured Weckenmann device that results in a ready-to-paint surface.

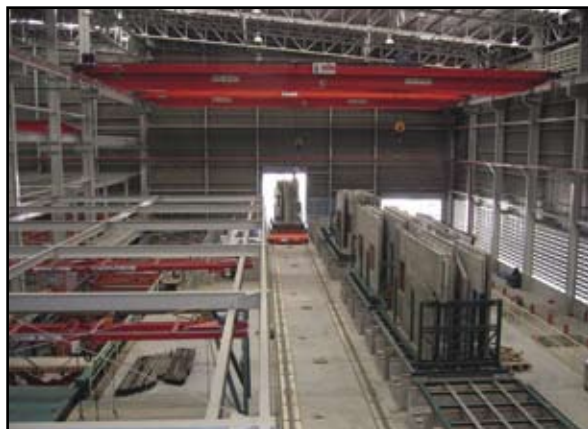
The flow of materials within the plant is carried out by a Vollert pallet circulation system that transports the formwork pallets to each work station in an eight-and-a-half minute cycle - thus guaranteeing flexible logistics in the production process. This circulation system was delivered together with a Vollert high bay racking/curing system. Each shuttering pallet has a capacity of up to 25 tons including the weight of the concrete and the forming elements.



The central master computer, designed and manufactured by Unitechnik, supplies each work station with the required manufacturing data and coordinates all of the automatic processes within the production plant. The master computer also monitors the storage time of each pallet in the heated high bay racking system to allow for the proper sequencing of each element for the building site. Once each wall panel has been properly cured, they are stripped the next day and transported to the building site for prompt erection.

“With this production plant, we are combining the advantages of German machine engineering with all the possibilities of the Thai market,” explained Hermann Weckenmann, Managing Director of Weckenmann Anlagentechnik of Dormettingen, Germany. “The cooperation between leading technical plant manufacturers and a far-sighted investor sets an example worldwide when it comes to the building of similar plants.”

Spillman Company represents Weckenmann, Vollert, and Unitechnik throughout North America and has been a partner with them in two completely automated precast plants in the US within the last five years. We continue to believe that there are a number of excellent opportunities that exist within our market for automation of wet cast processes and look forward to discussing your exact requirements with you. We can be reached at 800/44FORMS or 614/444-2184. In the meantime, you may wish to visit either the Weckenmann or Vollert websites at [www.weckemann.de](http://www.weckemann.de) and [www.vollert.de](http://www.vollert.de).



## MAGNETIC CHAMFER CONTINUES TO PLEASE

Spillman's EZY-STRYP® Magnetic Chamfer continues to be a winner for precasters and prestressers in North America since being brought on board two years ago. After years of development, the 3/4" Magnetic Chamfer strip is being offered in 4' lengths, priced economically at \$10 per foot (or \$40 per piece). We continue to offer



our normal discount of 10% on 100 feet or more; or 15% on 1000 feet or more. For more details on this great new product, please feel free to contact us toll free at 800/44FORMS or check it out on our website: [www.spillmanform.com](http://www.spillmanform.com).

### FALL CALENDAR OF EVENTS

October 16-19, 2005  
 December 6-7, 2005  
 January 17-20, 2006  
 February 23-25, 2006

PCI Convention & Exposition  
 ASTM C-27 on Precast Concrete  
 World of Concrete  
 MCPX-Manufactured Concrete  
 Products Exposition

Palm Springs CA  
 Dallas TX  
 Las Vegas NV  
 Anaheim CA