

# PRESS RELEASE

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# All in Precast – From Idea to Turn-Key Plant Concept

At this year's bauma in Munich, which takes place from April 11 through April 17, Vollert will be presenting new plant and machine concepts for stationary and fully automated production of precast concrete elements at booth 206 in hall B1. Taking centre stage are the award-winning and further improved ISO-MATIC 2.0, which cuts insulating material to exact specifications fully automatically, current new engineering and modernisation projects as well as state-of-theart formwork systems. True to the motto "All in Precast", Vollert is advising and consulting with customers on the latest precast manufacturing technology, offering customised plant concepts and providing information about trends such as building information modelling (BIM).

A leader in technology, Vollert continues to build and improve on its machines and plants. Presented with the INTERMAT Innovation Award in the construction machines/equipment category back in 2012, Vollert is taking this year's opportunity at the bauma 2016 to unveil its ISO-MATIC 2.0, which is even better than the outgoing model. The workstation of the ISO-MATIC 2.0 cuts insulating material to exact specifications fully automatically and in any shape and size, while a CAD-CAM-controlled cutting robot that can traverse up to 6 axes and uses a precision waterjet cutting head rated to 4,000 bar contours the material by cutting it with high positional repeatability. This approach minimises mistakes and scrap, thus improving productivity. The Kerkstoel Group in Belgium has already leveraged the new technology to make a dramatic increase in the output and quality of its double-wall constructions.

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#### **Modernisation Programme for Precast Concrete Plants**

Manufacturers of precast concrete such as Kerkstoel are addressing increased competition and rising costs by upgrading and retrofitting existing plants in line with new production standards. The technology used in many precast concrete plants dates back to the 1980s and 1990s and is therefore based on the sparse knowledge of the precast element sector, which was relatively new at the time. Architecturally unique construction projects that incorporate precast concrete elements and high production capacities for larger projects require modernisation programs for existing equipment in order to be realised. Shuttering robots, automatic concrete spreaders and high-performance turning devices have revolutionised manufacturing processes and increased profits. At Rector Lesage in Berre L'Etang, the gripping system of the shuttering robot installed in 2006 was recently replaced so that heavyduty shuttering systems could be used to cater to the trend toward ever larger and heavier concrete elements. The new mould gripper operates at a much higher level of accuracy when plotting contours and positioning shuttering systems, and features innovative new collision monitoring logic for the X, Y and Z-axes.

At LFT Lindermayr in Friedberg, the entire concreting area was thoroughly overhauled at the beginning of 2016 and included the replacement of a concrete spreader commissioned in 1988 with a state-of-the-art automatic spreader assembly.

### New Housing in Thailand and India

Interesting new engineering projects are currently underway in Asia. In an effort to meet the rising demand for real estate in Thailand, the national construction industry continues to invest in modern plant technology for the production of precast concrete elements as is the case with the Siam Cement Group (SCG Group). In future, up to 2.2 million square metres of solid concrete elements will be manufactured annually in Saraburi Nongkae and Chonburi, located northeast and southeast of Bangkok, respectively.

To ensure that the new walls and slabs are nothing less than of premium quality, the SCG Group relies on state-of-the-art technology and a clever stockyard solution for highly efficient loading and logistics. The intelligent plant configuration was designed and engineered with the customer's specific requirements in mind and makes full use of Vollert's standardised platform of technologies. CAD/BIM software is used to structurally model buildings.

India's construction industry is also making greater use of precast elements in response to the sustained boom in the housing and building sector. For Sobha Ltd, going down this road marked uncharted waters until very recently. Now, the company is set to manufacture up to 400,000 square metres of large-area walls and slabs each year in its new precast concrete plant in Bangalore, thanks to a turn-key solution from Vollert. Complex, special-purpose concrete parts, façade elements and structural, steelreinforced concrete elements such as columns and beams are made using stationary formwork equipment from specialist Nuspl, which has also been part of the Vollert Group since 2012.

At the 2016 bauma fair, Vollert will use projects such as these to showcase its proficiency in offering tailor-made solutions to industrial customers. From manufacturing technology through to finished plant concepts, all design and engineering aspects are intricately linked.

#### About Vollert Anlagenbau

Founded in 1925, Vollert Anlagenbau GmbH has built over 350 precast concrete element plants and established a network of subsidiary companies in Asia and South America to become an industry leader in technology and innovation in the precast concrete element industry. Vollert always offers its customers state-of-theart technology, from simple start-up concepts to highly automated multifunctional plants and systems for large and structural concrete elements or prestressed concrete sleepers for tracks and rail networks. The specialists provide manufacturers of construction materials, construction companies, and property developers with advice on the latest developments in precast concrete element manufacturing technology and devise customized, turn-key plant and machine concepts, ranging from high-performance tilting stations and battery moulds for stationary production to automated circulation systems and special formwork, for example, for supports, binders, and prefabricated staircases. The company employs some 250 personnel at its headquarters in Weinsberg. www.vollert.de

## Image material provided by Vollert



In Thailand, four power trowels are used to produce smooth mould surfaces. The VArio STORE rack operator then takes over the task of moving the pallets in and out of storage.



State-of-the-art magazining and shuttering robots operate with high turnaround times.



The ISO-MATIC 2.0 contours a wide range of insulation materials into the shape and size required with its 4,000 bar water jet and extremely high level of accuracy.



Complex, special-purpose elements and precast staircases are manufactured in India in addition to walls and slabs. Shuttering is carried out by a stationary solution from Nuspl.

# This article with print-quality images can be downloaded in German and English at www.sympra.de/presse/vollert.